Banks' sales force: an analysis of their capabilities to sell Complex Financial Products

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Biographic Note

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Abstract

Consumers of complex financial products (CFP) can only make appropriate decisions if they are given appropriate information. Therefore, they should receive clear, fair and not misleading information on key features of products that can meet their needs. In order for the advisement meet their needs, this ideally involves an assessment as accurate as possible of their situation, goals, investment horizon and risk tolerance profile and an adequate and objective advisement on the choice of the products.

As happened in other countries, unfair trade practices were observed by selling financial products not suited to the customer's profile or needs. To prevent the repetition of such practices, with potentially adverse consequences for investors, financial institutions and the financial system as a whole, its causes must be analyzed and the regulator must act in order to prevent the recurrence of those cases. Resulting from this concern, the Portuguese Exchange Commission, CMVM[1], signed in 2013 a protocol with 19 Portuguese banks on the marketing of CFP targeted at retail investors. The purpose of this agreement is to ensure that the risks and characteristics of CFP are properly understood not only by costumers but also by the involved professionals themselves and guarantee the marketing abstention with retail customers outside the scope of the provision of discretionary management service or investment advice of certain CFP.

Thus, this work intends to assess the extent to which the sales force of the Portuguese banks fully understands the technicalities of CFP and, thus, explain them to potential clients. This study uses the mystery client approach to assess the capacity of bank sales force to sell CFP to the costumers in the Grande Porto area, by visiting 61 branches of the specific banks that were taken into consideration. The results of this study show that, although the majority of the bank's sales force are capable of explaining the specific characteristics of the products, they demonstrate many flaws in other aspects of the provision of those products, especially in what concerns to the suitability of the products to the clients and the risks they represent to them, envisioning the need to develop demanding mechanisms that ensure "that institutions take into account the interests, goals and features of the costumers" (Banco de Portugal, 2014a).

Key-words: financial capability, complex financial products, bank's salesforce
JEL-Codes: **G21, D83**

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[1] CMVM- Comissão do Mercado de Valores Mobiliários

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1. Introduction

In several countries, especially since the financial crisis, the long-term consequences of low levels of financial literacy of the population are encouraging governments to take action and develop national programs to face this reality (OECD and Russia's G20 Presidency, 2013). Both national and international authorities, particularly the countries of OECD, have conducted surveys to measure the financial literacy of the different population groups. From the results of those surveys they develop financial education programs to improve levels of financial literacy and, thus, encourage informed financial decisions. For instance, resulting from this concern, in 2010 the Portuguese Central Bank conducted a survey to measure the financial literacy of the population. Besides, the National Council of Financial Supervisors, composed by representative members of the Bank of Portugal, the Securities Market Commission (CMVM) and the Portuguese Insurance Institute (APB)[2] developed a strategy named *National Plan of Financial Education* (2011-2015) that aims to promote and disseminate financial education projects.

In light of the financial crisis and the recognition that one of the reasons that triggered it is associated with the creation and distribution of products with a very high degree of complexity and, therefore, the difficulty to understand the specificities of such products, the authorities became more and more aware and concerned with this issue, which led them to address the problem. However, authorities are willing to promote financial education programs to the investors, leaving aside the issue of service providers, which in itself also play an important role in clarifying investors on products' information. Recent studies point out that the lack of financial knowledge may lead investors to seek for information intermediaries' help (Jinkook and Jinsook, 2005; Hackethak et al., 2012).

The offer of complex financial products (CFP) to retail investors has been gaining increasing importance in the financial markets. In fact, in the last two years the amount invested in complex deposits (the most commercialized CFP by retail investors) grew significantly from 1.3 million euros in 2012 to 4.4 million euros in 2014 (Banco de Portugal, 2014b).

[2] Associação Portuguesa de Bancos

Thus, it becomes necessary to ensure that its features and risks are appropriately perceived not only by customers but also by the involved employees themselves (CMVM, 2013).

The present work intends to fill in a gap in the literature by measuring the extent to which the salesforce of the banks operating in Grande Porto area possess the technical profile and knowledge to be able to present these CFP in an informed way to their clients. To the best of our knowledge, there are no other studies on this topic applied to other region or country. It is essential that sellers of such products are adequately prepared to present the financial products offered by the bank and provide the necessary clarifications to its customers on the products' prospectus, since they are often hard to interpret.

To do so, a sample of branches in the Grande Porto Area belonging to major banks selling these products was drawn and visits to them were arranged, by playing as a bank costumer who is interested in investing and wants to know specific information on CFPs.

The rest of the report will be structured as follows. Chapter 2 presents the literature review on relevant areas of the topic: i) financial literacy; ii) complex financial products and the developed regulation; iii) Study Objectives. Chapter 3 explains the methodology adopted: i) literature on the mystery shopping methodology; ii) description of the sample; iii) observation questionnaire design. Chapter 4 describes the results: i) sample statistic characterization; ii) analysis of the information requested by the employee; iii) analysis of information spontaneously provided by the employee; iv) analysis of the capacity to answer to questions about the products; v) correlations between variables. Finally, the conclusions are presented in chapter 5.

2. Literature Review

This chapter covers the most relevant literature with respect to the research topic of the dissertation. The chapter is divided in the following sections: financial literacy; complex financial products; the authorities' responses on complex financial products; the Portuguese regulation on complex financial products; the protocol on the marketing of complex financial products and finally, a critical analysis of the literature review.

2.1. Financial Literacy

The financial developments are challenging. Consumers face numerous difficulties to understand financial services and the consequences of this inability are dire. Instruments are often complex and comprehending them takes time and demands expertise and effort (Bell and Eisingerich, 2007). In fact, the creation of extremely complex financial products and the high risks inherent to them was pointed as one of the causes for the financial crisis of 2007 (Larosière et al., 2009). Many of these products were, before the crisis, traded not only by eligible counterparties but also by unqualified retail investors (CMVM Regulation No. 2/2012). The growing level of complexity of financial products have enhanced the interest for financial literacy and highlighted the need for a higher level of consumer financial capability (Nicolini, 2006). The improvement of financial literacy would allow consumers to access better investment opportunities and, thus, to increase the expected value of their investments' return (Jappelli and Padula, 2013).

As stated by OECD (2013), financial education is a process by which consumers improve their knowledge of the financial products and concepts, developing the necessary skills and confidence to understand financial risks and opportunities, thus, leading to reflected decisions and participation in economic life. Financial literacy is the capability of individuals to evaluate new and complex financial instruments and make informed decisions in a way that meets their long-term objectives (Mandell, 2008). The concept of financial literacy goes beyond the knowledge of financial matters, it is "a combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (OECD, 2012). In short, it is the capacity of individuals "to process economic information and make informed decisions about financial planning, wealth accumulation, pensions, and debt" (Lusardi and Mitchell, 2014).

Moreover, by encouraging informed financial decisions, financial literacy acts as a promoter of welfare and economic growth, contributing to fight poverty and reducing financial markets instability (OECD, 2006).

As Braunstein and Welch (2002) stated, the lack of financial literacy results in ineffective money management, by promoting behaviors that make consumers vulnerable to severe financial crisis. However, for the average consumer, making financial decisions is a complex process filled with uncertainty and risk, often leading to less than optimal decisions that can bring about severe consequences.

Accordingly, policymakers have embraced financial-literacy education, highlighting its importance to the disclosure model of regulation (Willis, 2008). National strategies have been developed not only for the public in general but also to key target audiences – youth, women, migrants, entrepreneurs, workers, low-income citizens and elderly segments of the population (OECD and Russia's G20 Presidency, 2013). Governments are increasingly concerned with the population's financial literacy and recognize the positive effects of its improvement to the economy in general (Grifoni and Messy, 2012). This concern, together with the financial crisis, triggered the demand for financial literacy programs, thus leading governments and private institutions around the world to develop and adopt several financial education programs (Bruhn and Zia, 2011). For instance, in Europe, the recommendations on financial literacy set by the European Parliament for its Member States led them to take numerous actions on the matter (Williams and Satchell, 2011).

In 2003, the OECD launched the Financial Education Project, which intended to assess the financial literacy of the individuals of the member countries in order to develop strategies to improve it. Also, the OECD created in 2008 the International Network on Financial Education (INFE)[3] - a platform with data, reports, research and policy instruments collected on financial literacy - oriented to promote the "international cooperation between policy makers and other stakeholders on financial education issues worldwide".

In Portugal, the Portuguese Central Bank conducted a survey in 2010 to measure the financial literacy of the population and the National Council of Financial Supervisors - comprised by representative members of the Bank of Portugal, the Securities Market

[3] http://www.financial-education.org/join_INFE.html

Commission (CMVM) and the Portuguese Insurance Institute - developed a strategy named National Plan of Financial Education (2011-2015)[4] that aims to promote and disseminate financial education projects.

Despite of all these efforts on financial education being crucial, banks still play an important role on providing consumers with effective, clear and comprehensible information before they enter in any contract. As such, the financial industry is responsible for "ensuring through on-going training and education, that employees of the sector, especially those who are in direct contact with consumers, have the appropriate competences and qualification to present in a plain and simple manner, the products they offer and act in the interest of the client" (European Banking Federation, 2009).

[4] http://www.todoscontam.pt/SiteCollectionDocuments/NationalPlanforFinancialEducation.pdf

2.2. Complex Financial Products

In the last decades, the retail banking sector went through a process of financial innovation, particularly in what concerns savings and investment products, in which the CFP are included.

The CFP are designed to provide to retail investors the access to assets (stocks, bonds, commodities) and investment strategies that were previously only available to professional investors. In the marketing of these products there were often used aggressive practices, sometimes using expressions such as "absolute return", "guaranteed" and "protected growth" or announcing superior return rates than on bank deposits.

In understanding the concept of CFP, essential for the purpose of this study, one should consider the characteristics that have been attributed to them by International Organization of Securities Commissions (IOSCO) and the European Securities and Markets Authority - ESMA.

The definition of CFP by IOSCO (2013a) mentions the retail customers' difficulty to understand these products, referring to them as "financial products, whose terms, features and risks are not reasonably likely to be understood by a retail customer (as that term is defined in individual jurisdictions) because of their complex structure (as opposed to more traditional or plain vanilla investment instruments), and which are also difficult to value (i.e., their valuations require specific skills and/or systems, particularly when there is a very limited or no secondary market)".

As for ESMA (2014), a product can be considered as complex:

• If it is a derivative or has an embedded derivative[5];

• If the assets or underlying indexes are not easy to evaluate, or if the respective price or value is not accessible to the public;

• If the contract provides for a fixed investment period, in particular if it has penalties for early settlement defined in unclear terms;

• If it uses multiple variables or complex mathematical formulas to determine your return on investment;

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[5] Financial instruments whose value depends on the value of other financial instruments, or underlying assets or financial indices, for example, foreign currency or interest rates - often being included in financial products as a means of continuing or strengthening investment strategies and to cover, or offset, certain risks.

• If it includes guarantees or protection mechanisms of conditional capital or partial, or likely to disappear in the occurrence of certain events.

Examples of products that should be considered complex include: asset-backed securities, convertible or subordinated bonds, certificates, contracts for difference (CFDs), credit linked notes, structured products and warrants.

CMVM also distinguishes the CFP from the traditional savings products, since the first "offer an uncertain profitability, the calculation of which is sometimes very complex and usually dependent of the verification of certain events, of changes in the price of other assets (stocks, indexes , interest rates, commodities, etc.), and possibly assuming negative values" (CMVM, 2011 pp. 8). The technical complexity of some investments led these products to be classified as CFP. The Decree Law No. 211-A / 2008 defines CFP as financial instruments which are taking the legal form of an existing financial instrument. In other words, these instruments have features that are not directly identifiable with this instrument because of being linked to other financial instruments whose evolution depends entirely or in part, of its profitability.

From these definitions, some essential features are highlighted: transfer of risks of the underlying assets and complexity on the assessment and understanding of these products. The first characteristic allows for not only the risk coverage and management of assets for issuers, but also a greater diversification in the search for risk and return for investors, being considered as a source of efficiency and competitiveness in the market, generating liquidity (Schwarcz, 2009). The second characteristic is due to the fact that these products normally have valuation models and their prospectuses that are frequently hard to understand by most investors. According to a study of CMVM (2010), the evaluation results did not exactly match between the different methodologies used for the analyzed CFP, which were mostly exotic. They showed a distribution of payments between different possible scenarios difficult to comprehend by investors, even to the most sophisticated or with advanced knowledge in matters of financial nature[6]. In addition, to the CFP are always underlying complex clauses or

[6] From this CMVM study, other conclusions were taken. Most of these products showed strong asymmetry in the final return for the investor. In the case of capital guaranteed products, for example, there is a strong asymmetry in the occurrence probabilities of the different scenarios. Additionally, it was found that scenarios of high levels of return had actually a reduced probability of occurring. For products where there was no capital guarantee, it became even more difficult for the investor to understand the structure of the respective payments, given the non-linearity of such payments and the number and type of

contracts whose terms and conditions are hardly to be perceived by most investors, adding large information costs. Thus, assessment and comprehension are, in these terms, two inseparable features.

A common type of CFP are the structured products, which were defined by several authors as combinations of derivatives and traditional financial instruments in a single financial instrument, in which the derivative provides economic exposure to reference assets and create specific risk-return profiles adapted to the investor's needs (Tolle et al., 2012; IOSCO, 2013b; Bluemke, 2009). This type of CFP is an example of the comprehension problem referred above, in which even investors who have reasonable knowledge on financial matters express some difficulty in understanding the individualities of these products, in particular regarding the evaluation of its imbedded risk (CMVM, 2010).

On this topic, some other authors also found evidence of such misinterpretation by showing that investors' decision to invest is often driven by inappropriate reasons: the way situations are presented to them, overconfidence, risk aversion, misestimating of probabilities and competence levels (Breuer and Perst, 2007; Hens and Rieger, 2008; Rieger, 2008).

With respect to this concern, an Economic Report launched by ESMA in 2013 found empirical evidence to support the need for financial expertise and access to market data for the investors to understand the risk and reward profile of structured products. This is also suggested by other authors that drew attention to the way issuers disclose information regarding the characteristics of products to the investors (Wallmeier, 2011;Hens and Rieger, 2008; Döbeli and Vanini , 2010).

2.2.1 Authorities' responses on Complex Financial Products

As mentioned before, the financial crisis prompted market participants to the fact that innovation and growing complexity of financial instruments needs to be followed by greater levels of transparency and efficiency in the financial system, especially in the context of investor protection.

In IOSCO (2013a) the Technical Committee lists nine principles on the distribution of complex financial products. One principle concerning the information disclosure by the

underlying assets usually involved. Finally, the results of the study showed that the analyzed complex financial products presented, in general, lower expected returns than the traditional deposits.

intermediaries to the potential costumers, highlights their responsibility to assist clients on the investment decision-making process by informing them about the features and especially the risk-return profile of the products they intend to buy. According to that principle, the information prepared by the intermediary on CFP should communicate "in a fair, comprehensible and balanced manner" the risks and benefits, particularly if the performance of the product is sensitive to extreme scenarios. This communication should ensure that there are no overstatements on the potential benefits of the products and understatements on its risks. Another requirement regards to the sale of CFP under unsolicited basis, in which it is required from the regulatory system to provide "adequate means to protect customers from associated risks". Some proposals are the assessment of the customer's investment level of experience, warning of the inappropriateness of some investments to certain customers or even prohibiting the distribution of some CFP categories considered more risky and complex to retail customers.

On the European Union front, the MiFID (Directive 2004/39 / EC of the European Parliament and of the Council of 21 April 2004) introduces in the European regulatory scope a reinforcement of the rules of conduct by financial institutions and investment services. Under this directive, if an investor intends to buy a CFP, these institutions have to ensure that this product is not only suitable for the investor (suitability test) taking into account the objective of their investments, but also appropriate (appropriateness test), stressing here the investor's ability to understand and evaluate the risks involved in the subscription of the offered product.

Also at the EU level, the European Commission published on October 20, 2011, a proposal for a Regulation of the Markets in Financial Instruments ("MiFIR")[7]. This regulation attributes to the European Securities and Market Authority (ESMA)[8] and the national regulatory authorities, powers to prohibit or restrict the marketing, distribution or sale of any financial product or practice, if it is verified the risk of detriment of investors' protection.

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[7] http://ec.europa.eu/internal_market/securities/docs/isd/mifid/COM_2011_652_en.pdf

[8] European Authority on regulation and supervision of financial markets matters. Established authority by the EU Regulation No. 1095/2010 of the European Parliament and of the Council of 24 November 2010 to promote transparency, simplicity and equity in the markets.

Additionally, several national supervisory authorities have implemented relevant instruments of investors' protection in the field of CFP or announced the development of new surveillance activities in the same field.

2.2.2 Portuguese Regulation on Complex Financial Products

Over the last few years, in Portugal as in other countries, the complexity of the products offered to retail investors has increased. In 2008, with the banking crisis, the losses on investments made customer complaints grow with investors blaming financial intermediaries for the poor performances of their investments. A common argument of investors relied on the opaqueness of information provided before the investment, especially on complex products, and the lack of clarity of such information.

In fact, according to CMVM (2011), during 2009 and 2010 many complaints were received from the investors. Many investors were surprised by the low return of their investments or by realizing that their investments presented characteristics they were not aware they could have. Among those complaints were the provision of incomplete and not clear information about the products by financial intermediaries to their clients, the lack of information given to customers about the inherent risks, particularly for CFP and the absence of a request by the financial intermediary to the customer about their knowledge, experience in investment and investment objectives.

Also in CMVM (2010), the study concluded that CFP are of difficult interpretation to the investors in what concerns risk and possible outcomes, and therefore it became clear the need for more clarity on the information presented to the consumers.

In response to this situation, the national regulators, in particular the CMVM, revised their supervisory and regulation policies on CFP, reflecting the international developments and the experience with the already developed supervisory activity. Regarding the CMVM, this included several changes in the supervision of advertising, the introduction of a more active policy in terms of information documents related to CFP, the strengthening of the surveillance on the strategies and marketing practices and the promotion of post-sale transparency. It is also relevant to refer the increased attention being paid to entities that distribute this type of product, taking specific actions to verify if the salesforce reveals ability to understand and explain the product, evaluate whether or not it meet the customer's needs and act without conflicts of interest.

It is important to mention that, in Portugal, the CMVM and the Bank of Portugal share the supervisory responsibilities on CFP[9]. Therefore they drafted a document that determines which products are under the supervision of each entity[10]. From this agreement, the Bank of Portugal was appointed to supervise the marketing of financial products entitled deposits, while CMVM is responsible for the supervision of the investments in financial instruments. The Bank of Portugal is responsible for indexed[11] deposits and dual[12] deposits and the other CFP are regulated and supervised by the CMVM. The information and publicity aspects of CFP that fall under supervision of the Bank of Portugal whose rules are described by Notice No. 5/2009 and Notice No. 6/2009 of the same entity.

From the Decree-Law No. 211-A / 2008 of 03 November, which enabled the CMVM to regulate the information and transparency aspects for CFP, arises the Regulation No.1 / 2009, entitled " Information and Advertising on Complex Financial Products under Supervision of the CMVM”[13]. The Decree-Law includes an article (no.2) whose purpose is to ensure the delivery of an information prospectus to the investor “in clear, brief and intelligible language" and that the information must be "complete, true, current, clear, objective, lawful and appropriate”. Furthermore, in this regulation it is also contemplated the minimum content that must be included in the CFP information document, including the product entitlement as CFP.

In the beginning of 2012, the publication of the Report of the Analysis of the Impact of the Regulation on Complex Financial Products, justified and supported a closer, rigorous and active regulatory intervention of CMVM in the field of CFP. This document advised the revision and implementation of a new supervision model that ensures better investors’ protection by replacing the CMVM Regulation No. 1/2009 and change the scope of the CMVM Regulation No. 8 / 2007.

[9] According to the CFP definition of the Decree-Law No. 211-A/2008

[10] “Entendimento conjunto do Banco de Portugal e da Comissão do Mercado de Valores Mobiliários quanto à delimitação de competências respeitante a produtos financeiros complexos”, BdP, 2009.

[11] Deposits whose characteristics differ from a simple deposit because its profitability is associated, in whole or in part, to the evolution of other instruments or financial variables (shares or a basket of shares, index or a basket of equity indices, index or an index basket of commodities, etc.). Also included in this category are the deposits where profitability is associated to the money market indices (CMVM and BdP, 2009).

[12] Deposits resulting from the combined marketing of two or more deposits, simple and / or indexed (CMVM and BdP, 2009).

[13] The Regulation No. 1/2009 covers the certificates, credit linked notes, structured bonds, covered warrants and mutual funds that are associated with financial instruments.

The more demanding Regulation No. 2/2012 on Disclosure Duties Relating to Complex Financial Products and Marketing of Unit-Linked Insurance Plans, which came into force on 1st January of 2013, requested issuers to adopt new procedures by changing the method and the type of information to be included in the prospects and fact sheets.

Although the scope of this regulation remains the marketing and sale of CFP, some significant modifications were introduced, such as the creation of a pre-contractual information document to be delivered to the investor and the Key Information Document (KID).

Furthermore, whereas previously only the minimum information requirements were defined, there is now an exhaustive description of the information and warnings to be included in these documents.

The issuer of a CFP has become obliged to include in the KID a graphic warning, which contains the main relevant characteristics of the CFP to be subscribed as well as information on the possibility of loss at maturity of some or all the capital invested.

Moreover, it also introduces a requirement for the CFP with periodical income or whose repayment date or amount of the reimbursement is contingent upon the occurrence of a certain event. For these products, the issuer is obliged to present scenarios according to their probability of occurrence (Article 13). This new rule intends to correct some "misleading advertising", being the issuers now required to report on the occurrence probabilities of the returns offered.

Resulting from the previous concerns, CMVM signed in 2013 a protocol with 19 banks[14] on the marketing of complex financial products for retail investors[15].

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[14] The signatory banks are: Banco Best, Banco BIC Português, Banco Bilbao Vizcaya Argentaria, Banco BPI, Banco Comercial Português, Banco de Investimento Global, Banco Espírito Santo, Banco Invest, Banco Popular Portugal, Banco Português de Investimento, Banco Santander Totta, Banif – Banco Internacional do Funchal, Banif Banco de Investimento, Barclays Bank PLC, BNP Paribas, Caixa Central – Caixa Central de Crédito Agrícola Mútuo, Caixa Económica Montepio Geral, Caixa Geral de Depósitos, Deutsche Bank AG. Out of the agreement remained: Banco Carregosa and Banco Financia.

[15]The PBA - Portuguese Banking Association played a key role in the discussion of the agreement reached. The protocol was signed on 10th of December of 2013 and came into force on 1st of January of2014. It is valid for one year and is automatically renewed for the same period, if the parties do not object.

2.2.2.1 Protocol on the marketing of complex financial products

On the one hand, through this Protocol, the signatory entities agreed on the marketing abstention with retail customers outside the scope of the provision of discretionary management service or investment advice of CFP that are classified with orange (high risk level) or red (very high risk level) graphic alert and in which the average profitability rates between percentile 20% and 80% are negative.[16]

For the purposes of the Protocol are considered "retail clients" the investors who are classified as "non-qualified" and hold, in individual or collective accounts, financial assets equal to or less than € 500,000. For financial assets it is considered only the set of financial instruments that the client holds other than bank deposits.

On the other hand, the protocol foresees the commitment to adopt effective prevention and management of conflicts of interest in the marketing of CFP, to ensure that customers' interests are always privileged before other criteria, in particular by the non-adoption of variable compensation mechanisms or incentives related to the amount of sales either by the employee or by the commercial structure.

Due to its high degree of complexity, CFPs requires precautions in its marketing so that their characteristics and risks are properly apprehended not only by customers but also by the employees involved in it.

Therefore, the responsible entities for the marketing of complex financial products must have qualified human resources, which must be able to ensure the transmission, to customers, of correct and complete information and to guarantee that the investment is preceded by the formulation of appropriate warnings and the completion of the products' suitability and appropriateness tests to its investors.

Hence, it results from the Protocol the commitment of the signatory banks to ensure that their employees act according to high standards of professionalism and quality in the marketing of CFP. Each entity has committed to make every effort to provide the adequate training to the employees selling CFP. These training activities should enable employees with the knowledge on markets and financial products, in order to clarify customers on the characteristics and risks of the products they offer.

[16] The CFP are classified with orange or red alert according to Article 9 of Regulation No 2/2012. The average profitability rates between percentile 20% and 80% are based on simulations prepared in accordance with the provisions on paragraphs 2 and 3 of Article No. 13 of Regulation No. 2/2012 of the CMVM; and (ii) CFP that are classified with orange or red alert pursuant to Article 9 of Regulation No 2/2012

Regarding the assessment of the impact of the Protocol, each signatory bank is responsible for informing the CMVM on the measures it has undertaken, as well as its scope, findings and conclusions, as part of an annual assessment of the effects produced.

The relevance of this dissertation derives from the lack of empirical research on the ability of the banks' salesforce to understand, inform and explain properly to customers the features, risks and return profile of complex financial products they sell.

2.3. Study Objectives

From the literature review, some conclusions can be drawn. Firstly, there is a growing need to support investors in their decision-making process, in particular due to the emergent innovation of financial products.

The high technical complexity of some financial investments originated the classification as complex financial products. They are financial instruments whose complexity is mainly associated with the perception of risk and expected return for most investors. The supply of these products is vast and fluctuates over time, following the innovation of the financial industry.

Secondly, it is necessary that the salesforce of the banks are capable to inform investors on the products they intend to buy and to ensure those products are adequate to the profile of the client.

In Portugal, the financial institutions involved in the Protocol accepted that the marketing of CFP would be carried out by qualified employees with a high degree of knowledge on the marketed products, equipped with the skills necessary to provide customers with the relevant information. Nonetheless, there is a gap in the literature regarding the banks' salesforce, which is to understand whether they are prepared and equipped with the necessary tools to provide the clarifications demanded by the investors and, thereby, support the decision-making process.

Therefore, the current research objective is to measure the capability of the salesforce of the banks to present the prospectus of CFP and explain their characteristics. Additionally, the study intends to analyze if the salesforce of the banks are complying with the regulation related to the selling and marketing of CFP. Thus, the study also intends to:

- Verify the compliance, from those responsible for the sale of CFP, with the previously described protocol;
- Verify the compliance with the rule of obligatory provision of the KID to the investor on the complex products covered by the Regulation No. 2/2012;
- Verify if the suitability and appropriateness test required under the MiFID directive is being done.

Related with this last point, some of the main information required on the suitability test is also analyzed separately to understand to which extent the employees are concerned with the client's profile and objectives of investment before suggesting any kind of product.

3. Methodology

This study uses a mystery shopping methodology targeting retail banks in "Grande Porto" area[17]. This chapter describes the methodology, the sample and the questionnaire used in the study.

3.1. Mystery Shopper Methodology

Nowadays, mystery shopping is a well-established methodology and a very common technique for measuring the performance of banks (e.g. Schrader, 2006; Roberts and Campbell, 2007 and Pinar et al., 2009).

As a research technique, it uses researchers, who are prepared beforehand, to act as customers or potential customers to gather the data on the subject to be studied. Typically, the researcher enters the branch and act as a customer to engage in a normal interaction to afterward fill a report on numerous aspects of the service (Finn and Kayandé, 1999). The mystery shoppers follow specific guidelines to simulate a transaction in a way that measures the service's process and report the experience in a detailed and objective manner (Market Research Society, 2014). Thus, the mystery shoppers perform the encounter taking in consideration a pre-defined scenario, according to the instrument being studied (Schrader, 2006).

The reliability and validity of the data depends on the design of the mystery shopping's mission details, particularly regarding the data gathering process, the researcher and the reporting process (Hesselink and van der Wiele, 2003). The data gathering process has to be linked to the specific situation and to the institution being analyzed.

The preparation of the researchers is a very important aspect of this methodology. It is crucial that the mystery shoppers are properly trained and have knowledge of the processes they are studying in order to make a critical report on the failures found. (Van der Wiele et al., 2005).

The accuracy of the results depends on the objectivity of the measures. Measuring objective dimensions is easy as most of the times it is a matter of registering if an event

- [17] The Grande Porto area is defined by the NUTS III and it is constituted by 11 municipalities: Espinho, Gondomar, Maia, Matosinhos, Porto, Póvoa de Varzim, Santo Tirso, Trofa, Valongo, Vila do Conde, Vila Nova de Gaia.

has taken plance or not. For measuring more subjective dimensions that involve judgments such as the politeness and the product knowledge of the staff and rating scales are normally used (Wilson, 1998). Typically, the report of a mystery shopping experience includes numerical ranking on a series of statements, check-lists, and open-ended questions regarding the shopper's general impression.

This market research technique overcomes some of the problems related with the traditional survey research methodology. According to Wilson (1998), one advantage of this methodology results from measuring the service as it unfolds rather than gathering opinions of costumers on the service afterwards. In fact, because the consumer surveys are retrospective, they often result in a divergence between real and reported behavior. Also, according to Finn and Kayandé (1999), surveys using mystery shopping produce accurate and stable results even with a small number of observations.

3.2. Sample

The present study focuses on the salesforce pertaining to the branches located in Grande Porto of the 19 banks that signed the protocol agreement on CFP in 2013. Although 19 banks signed the protocol considered for this study, according to data from the Bank of Portugal and the CMVM only 13 of them traded CFP during 2013. Hence, only those banks will be considered for the study. Therefore, the total number of branches in the Grande Porto area is 616, representing the population of the study (Associação Portuguesa de Bancos (APB), 2014).

To calculate the sample size for a study, three criteria are necessary to be specified: the sampling error, the confidence level and the degree of variability in the main measured attributes. Since that a more heterogeneous population requires a larger sample size and the proportion of 50% indicates the maximum variability in a population this variability is used in more conservative sample sizes (Puszczak et al., 2013).

Having those three criteria in consideration, Cochran (1963) created the following formula for finite populations:

$$n = \frac{\sigma^2 . p. q.N}{e^2(N-1)+\sigma^2 p.q}$$

n= sample size; σ^2= confidence level, measured in number of standard deviations; P= estimated proportion of an attribute that is present in the population; q= 1-p; N= population size; e^2= maximum error allowed.

The calculation of the sample was carried by considering a confidence level of 90%, which corresponds to a number of standard deviations equal to z= 1.65. The maximum error considered is 10%. Since this formula demands to define an expected probability of occurrence and there is not yet any idea of that distribution it will be assumed there is an equal probability of the banks' salesforce being or not prepared to sell CFP. Making this assumption means to consider the worst case scenario because according to this formula a more heterogeneous population demands a larger sample.

Therefore, the calculations are the following:

$$n = \frac{1{,}65^2 * \ 0{,}5 * \ 0{,}5 * 616}{0{,}1^2 * (616-1) + 1{,}65^2 * 0{,}5 * 0{,}5} \approx 61$$

According to Ghiglione and Matalon (2001), a sample is considered representative if it can verify a significant number of hypothesis but this verification is often uncertain given the small number of people representing a certain group. In order to be able to generalize observations of a sample to an entire population, one must ensure that the sample has similar characteristics to the population. A sample is considered to be representative if all the population of individuals have the same probability to be part of the sample. Considering this, the sample was chosen based on a proportional stratified sampling method, in accordance with three stratification criteria: the banks, the municipalities and the amount (in €) of traded CFP.

To define the number of branches to visit from each bank, a weighted average was calculated with equal weights between two variables. The first variable is the number of branches per bank and the second variable is the volume resulting from the sale of CFP. This calculation meant to guarantee that every bank is represented in the sample since that, if only one variable was considered, some banks would be excluded. For the first variable, the information was taken from the Statistical Bulletin of APB (2013). For the second variable, and considering that some CFP are under the supervision of CMVM and others under supervision of Bank of Portugal, the information was taken from the annual reports of 2013 of both entities. The total amount of traded CFP under supervision of each authority is presented in Table 1.

Entity	Amount (10^6€) of CFP traded under CMVM supervision	Amount (10^6€) of CFP traded under BdP supervision	Amount (10^6 €)
BBVA		205,5	205,5
Banco BIG		205,5	205,5
Banco Invest	0,4	469,7	470,1
Santander Totta		763,2	763,2
Millennium BCP	1.771,2	1291,6	3062,8
Novo Banco	44,0	117,4	161,4
Montepio		264,2	264,2
CGD		763,2	763,2
BPI	98,8		98,8
Banco Popular	2,3		2,3
Barclays Bank PLC	172,3		172,3
Deutsche Bank AG.	1.217,3		1217,3
Banco Best	131,7		131,7
TOTAL	3438,0		7518,4

Table 1- Amount of products traded by financial institution

Regarding the products from Bank of Portugal responsibility, since this entity was not able to provide the volume discriminated by bank, an assumption was made: the total amount traded of indexed and dual deposits per bank is in proportion equal to the number of the products developed by each bank in the same year. Using this criterion it was computed the weight of each entity and using the value of the total amount traded by all the banks provided by the report of Bank of Portugal, the amount for each bank was obtained by multiplying the weight of each entity by that number. These calculations are presented in Table 2.

Entity	**Number of dual and indexed deposits traded**	**Weight of each entity**	**Amount (10^6 €)**
Banco Bilbao Vizcaya Argentaria (BBVA)	7	5,0%	205,5
Banco de Investimento Global (Banco BIG)	7	5,0%	205,5
Banco Invest	16	11,5%	469,7
Banco Santander Totta (Santander Totta)	26	18,7%	763,2
Banco Comercial Português (Millennium BCP)	44	31,7%	1291,6
Banco Espirito Santo (Novo Banco)	4	2,9%	117,4
Caixa Económica Montepio Geral (Montepio)	9	6,5%	264,2
Caixa Geral de Depósitos (CGD)	26	18,7%	763,2
TOTAL	139	100,0%	4080,4

Table 2- Calculation of the weight of each entity according to the number of dual and indexed deposits traded

Then, a weighted sum of the two variables was computed, resulting in the distribution of visits per bank presented in the following table. The calculations are more detailed in Appendix 1.

Entity	**No of branches to visit**
BBVA	2
Banco BIG	1
Banco Invest	1
Santander Totta	8
Millennium BCP	16
Novo Banco	5
Montepio	4
CGD	8
BPI	5
Banco Popular	2
Barclays Bank PLC	2
Deutsche Bank AG.	6
Banco Best	1
TOTAL	61

Table 3-Number of branches to visit per bank

Finally, in order to ensure the sample represents equally the population under study, the branches to visit were distributed per municipality according to the weight of each bank in total number of branches in Grande Porto. The results are presented in Table 4. To more detailed calculation see Appendix 2.

Entity	No of branches to visit
Espinho	2
Valongo	3
Gondomar	4
Maia	6
Matosinhos	8
Porto	21
Póvoa de Varzim	2
Santo Tirso	2
Trofa	2
Vila do Conde	2
Vila Nova de Gaia	9
TOTAL	61

Table 4- Number of branches to visit per municipality

The present study, based on the mystery client methodology, was conducted between February and April of 2015 to 61 branches of banks in Grande Porto that sell CFP to the retail market. For these interviews a predefined customer profile was designed. According to this profile, the client presented itself as someone without relevant knowledge on the matter of financial investments besides the traditional term deposits, and no experience in buying CFP. The objective of the client was to invest 40.000 Euros. The tolerance to risk was moderate, with a long-term investment horizon.

3.3. Observation questionnaire design

The observation questionnaire that was developed for the study is presented in Appendix 3- Observation Questionnaire.

The first set of questions regard the identification of the bank/branch of interviewed the employee interviewed works on, so that comparisons between banks can be conducted and to verify if the location of the branches influences the level of preparation of the employees selling CFP.

The next group of questions intends to identify the demographic characteristics of the employees, which cannot be extensive due to being a mystery client approach. In here, the age will be measured in a large scale so that the possibility of error can be small.

The purpose of the third set of questions is to examine the type of information the employee is interested in knowing about when offering the products to the customer. Thus, here it starts an evaluation of the employee's preparation, since he is required to analyze the investor’s objectives before informing about any product. Because these are questions that verify only if they asked for this information or not, the scale adopted is of a yes or no response. These are some of the most significant aspects of the suitability test.

The fourth question is justified by the MiFID directive, which demands the completion of a suitability and appropriateness test by the bank when a client intends to invest in a CFP. Hence, this question simply intends to verify if this rule is being followed by the staff, measured also by a yes or no response.

The subsequent set of questions aims to verify which information the employee considers to be relevant when informing a client about a product. In the first question it intends to verify if the KID is being delivered to the investor as required in the Regulation No. 2/2012 on Disclosure Duties Relating to Complex Financial Products and Marketing of Unit-Linked Insurance Plans.

Next questions relate to the capacity of employees to explain the information relative to a CFP in order to examine if they are prepared or not, as the protocol requires, understanding and, thus, explaining to the customer the main characteristics of the product. In these set of questions, the profitability and the early repayment conditions were elaborated following the recommendations of CMVM to investors, in which they recommend specific questions on these products that a client should make before investing in a CFP. The remaining three questions were based on a KID of a CFP, indicative of the main characteristics of a product and, thus, the characteristics that should be asked to the bank employee. The chosen scale for these questions has only three levels, being 1 the case in which the employee is not able to explain the characteristic, 2 the case in which the employee can explain but shows some flaws and 3 the level that represents the clear understanding and explanation by the investor.

4. Results and data analysis

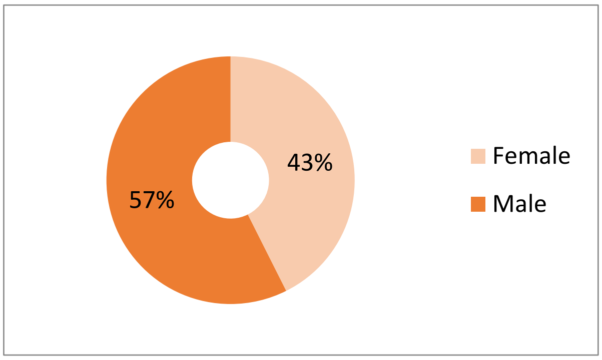
This chapter covers the analysis of the results from the current study. Thus, this chapter is divided in the following sections: sample statistic characterization; analysis of the information requested by the employee; analysis of the information spontaneously provided by the employee; analysis of the capacity to answer to questions about the products and correlations between variables.

4.1 Sample statistic characterization

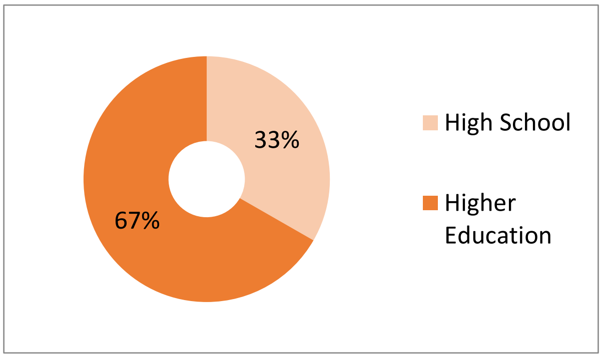
The analysis starts with the characterization of the sample according to three dimensions: respondents, bank and municipality and type of products sold.

Regarding the gender of the respondents (Graph 2), the distribution is fairly even showing a tendency for a larger number of male respondents.

Graph 1 shows most of the respondents have academic qualifications of higher education level (66.70 %) meeting the data from the Associação Portuguesa de Bancos (2013) that reports an increasing trend for the proportion of employees to have higher academic qualifications. However, it should be noted that this information corresponds only to about 44% of the respondents since it was not possible to obtain this information from the other 66%.



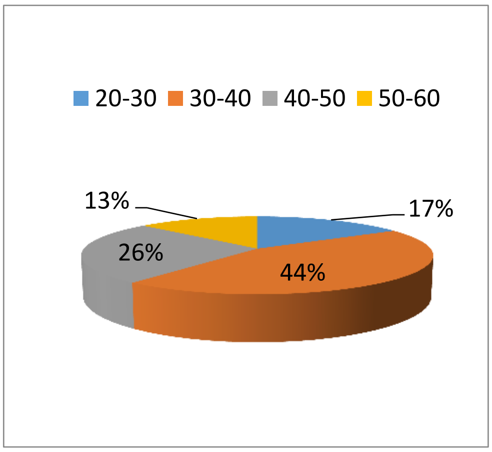
Graph 2- Respondent distribution by gender



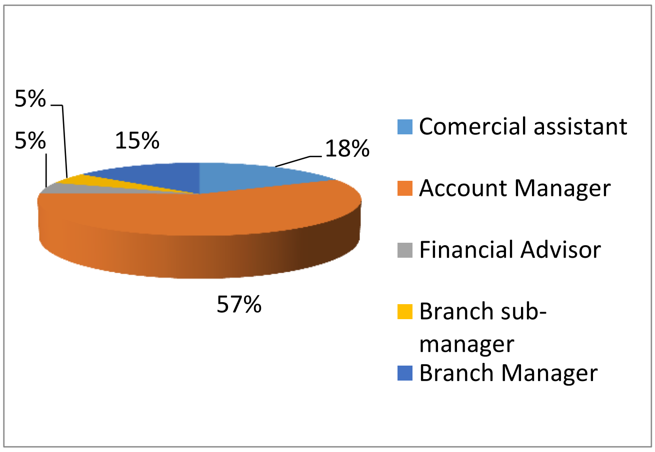
Graph 1- Respondent distribution by education

In terms of the age indicator (Graph 4), the respondents include employees mainly between 30 and 40 years (44%) and a minority of employees with over 50 years, reflecting the current trend of the Portuguese banking sector (Associação Portuguesa de Bancos, 2013).

To the job position (Graph 3) of the respondents includes account managers (57%) followed by commercial assistants (18%) and branch managers (15%). A minority of the sample also includes branch sub-managers and financial advisors, with a percentage of 5% for each.

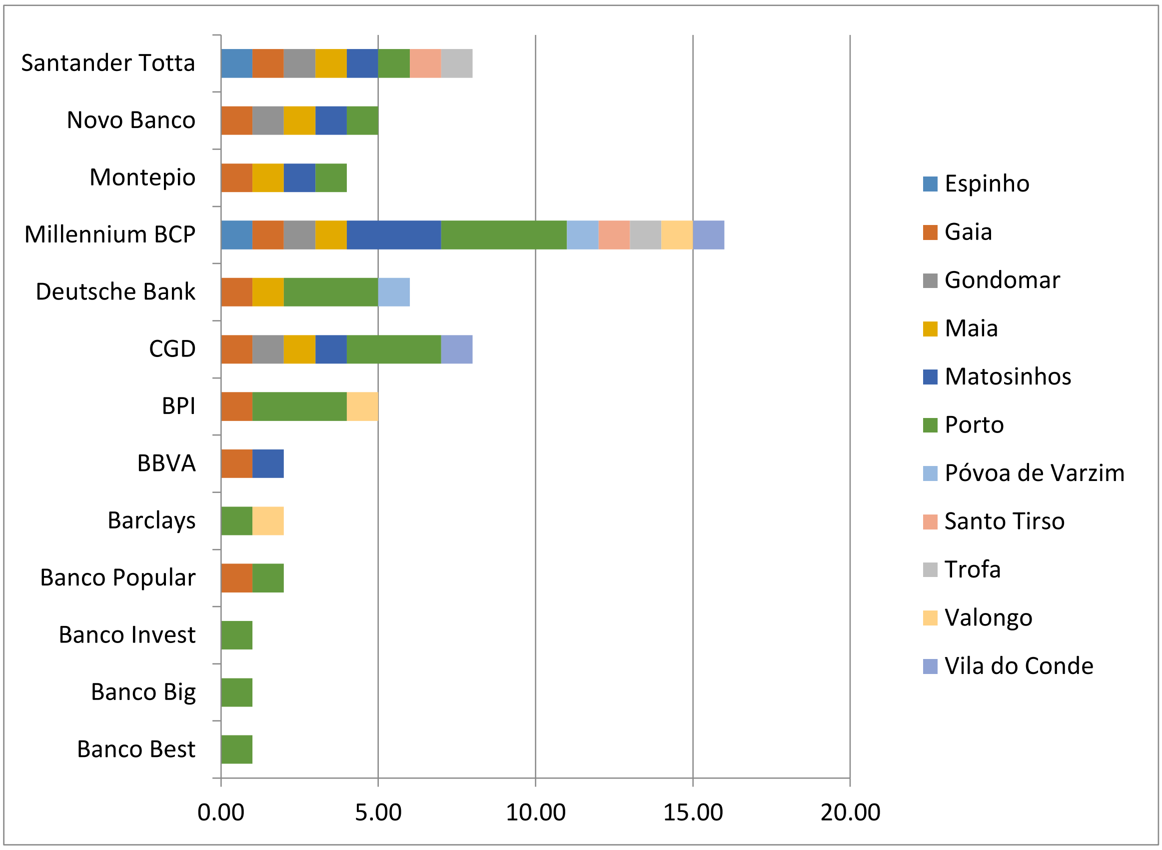


Graph 4- Respondent distribution by age



Graph 3- Respondent distribution by job position

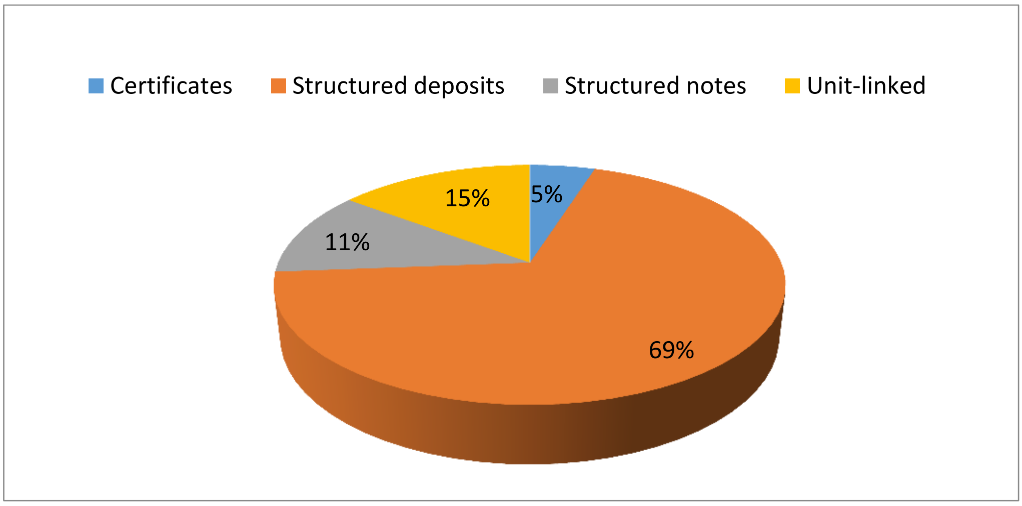
Graph 5 shows the distribution of the visits by bank and municipality as already described in the sample definition section. Having defined the number of branches to visit of each bank and in each municipality, this study tried to visit at least one branch outside Porto. This was not possible for the banks to which only one visit was done since they only had branches in Porto Municipality. However, by observing this graph it is evident that, for example, Millennium BCP was visited in every municipality since it demanded the higher number of visits. Also for the banks where only two visits were conducted, such as Banco Popular, BBVA and Barclays Bank, at least one was outside Porto.



Graph 5- Sample distribution by bank and municipality

Graph 6 shows the sample distributions by format of the 61 products. It should be mentioned that the bank employees mostly showed alternative products, however, for the purpose of this study the answers were analyzed according to their answers on questions about the first product offered by them.

Out of the 61 products presented by the respondents, the most traded CFP are the structured deposits (69%). In fact, there is a notable difference between these and the remaining products: unit-linked (15%), structured notes (11%) and certificates (5%). About the products it is worth to note that almost half of the banks presented products with an orange or red risk alert, which is one of the protocol points of intervention. In fact, according to the protocol, the salesforce are supposed to abstain themselves from offering this kind of products outside the scope of provision of discretionary management service or investment advice. Since this is not the main topic of the work, the different financial products are addressed in a more detailed way in Appendix 4.



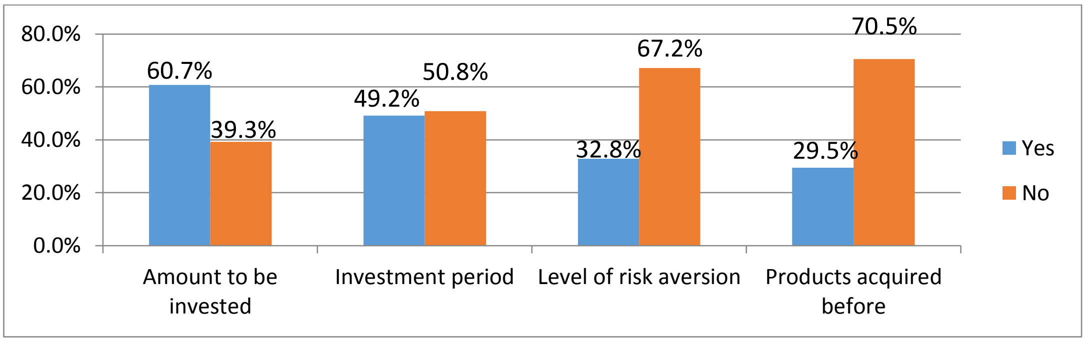
Graph 6- Products by format

4.2 Analysis of the information requested by the employee

The analysis refers to the questions concerning the information requested by the banks' sales force, in order to know the client profile, based on which the adequate products should be presented. The results are presented in Graph 7.

The most requested information by the bank's employees was the amount to be invested, followed by the investment period. The bank employees tried to find out about these aspects in 60.7 % and 49.2 % of the interviews, respectively. With regard to risk aversion level, the respondents only showed concern in requesting this information in 32.8 % of the interviews. As for the interest shown by bank employees to know what kind of products the customer had already invested in, this information was requested in only 29.5 % of cases.

A mystery client study carried by CMVM (2012b) intended to identify flaws on the banking network regarding the sale of financial products by analyzing several aspects such as the information requested by the employee when selling a product, the information spontaneously provided to the client and the compliance of the employees with the realization of the suitability test. When compared to that study, it seems that the results, although with different percentages, reflect a similar trend. In fact, in both studies the most required information is the amount to be invested and the investment period, while the level of risk aversion tends to be disregarded from the concerns of the employees, pointing for the need to give special attention to this aspect. Actually, this information should be of high concern for the employees before presenting any type of product. Finally, the low percentage of cases in which the respondent showed concern in asking what types of products were usually bought by the client, both studies point to a significant disregard of this information, that should be of special importance since it reflects the experience or lack of it by the client on the investment in CFP.



Graph 7- Information requested by the employee

4.3 Analysis of the information spontaneously provided by the employee

4.3.1 Frequency analysis

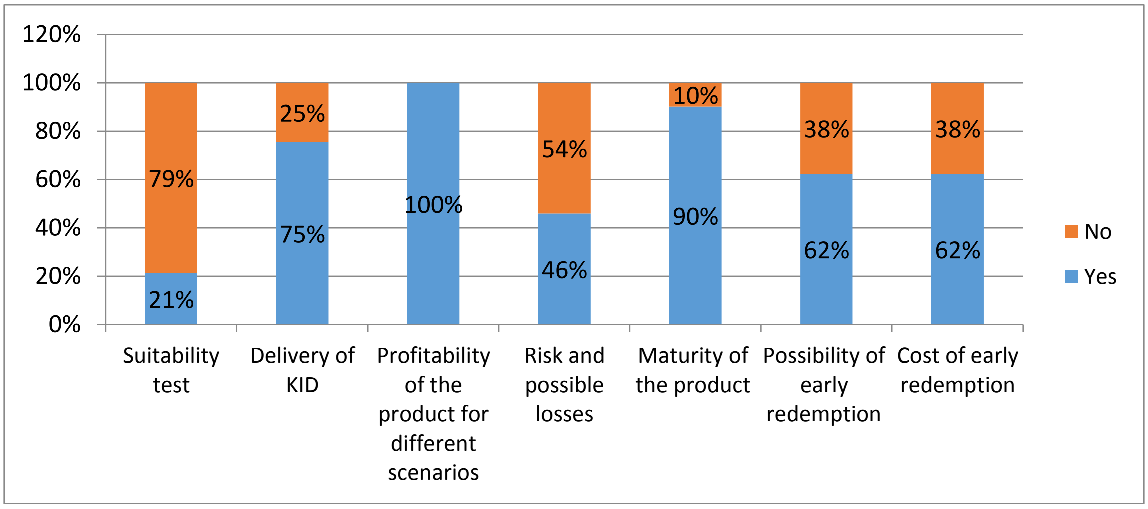
We analyze the information spontaneously provided to the customer by the employees of the banking institutions about the product they intended to sell summarized in Graph 8.

The first information that should be provided is the suitability and appropriateness test in accordance with the MiFID directive. This obligation was only fulfilled in 21% of the interviews, which is an extremely low figure. The compliant banks to this requirement include the Deutsche Bank, the Barclays Bank, the Novo Banco, the Montepio and the Millennium BCP, wherein the former bank represents 38% of this amount and in which only one respondent did not mention the test. For the second bank, all employees mentioned this information, unlike the others in which only a minority pointed for the need to proceed to this test. It is also worth mentioning that, in more than one bank, the employee, although mentioning the need to perform this test, tried to influence the customer to respond in such a way as to be able to acquire the products and not necessarily in accordance to the investor's profile.

Regarding the delivery of the KID to the customer, this happened in 79% of the interviews. One third of the cases where the employees did not deliver the KID refer to the Deutsche Bank, whose policy consists of providing a summary of the products characteristics that might be simpler to understand, instead of handing in this form. However, all employees of this bank emphasize that the delivery of this document will be made if the customer decides to make the investment.

The profitability of the product in the various relevant scenarios was discussed in 100% of cases, contrary to what was reported in the CMVM study, in which the highest value recorded was 62%. This is indicative of the improvements already in place in this area. The second most mentioned information was the product maturity. The possible risks and losses were spontaneously mentioned only by 46% of respondents. This is the less transmitted information when in fact it is the most relevant one for consumer protection. The employee spontaneously described the early redemption covenant and the inherent costs 62% of the cases.

Compared to the results in CMVM (2012b), in which most of the features spontaneously revealed rarely reached more than 65% of the interviews, the results of this study seem to register more optimistic values, although there are significant gaps in information provided. However, it should be noted that the studies are not fully comparable, since neither the respondent nor the product groups into consideration are the same.



Graph 8- Frequencies of the information spontaneously provided by the employee

4.3.2 Index of information spontaneously provided by the employee

4.3.2.1 Descriptive statistics and normality test

In this section, an index of information spontaneously provided by the employee is computed. The index is built to measure the amount of information spontaneously provided by the respondents in order to relate it with the demographic product variables. The index for each observation is given by the arithmetic mean of the scores in the seven questions of groups 4 and 5. Since all the answers are of yes or no type, the scores vary between 0 and 1.

According to Table 5, the distribution of this index has an average value of 0,6534 and a median of 0.7143. Observing the percentiles of the index, it shows that 25% of the inquired have a score equal or lower than 0.4286 and only 25% of the inquired have more than 0.8571. This is consistent with the conclusions taken in the frequency analysis and highlights the need for better and more informative communication with the potential investor at the sale points.

Average	Median	St.Deviation	Skewness	Kurtosis	Min.	Max	Percentil 25	Percentil 75
0,6534	0.7143	0.23249	-0.304	-0.832	0.14	1.00	0.4286	0.8571

Table 5- Descriptive Statistics of the index of information spontaneously provided by the employee

To study the type of distribution of the index it was computed the Kolmogorov-Smirnov test (Table 6) since, according to the definition presented by Marôco (2010) this is used to verify if the distribution of the variable under study derives from a population with a specific distribution, which in this particular case is to test the normality of the indexes. The test showed a p-value of 0.000, rejecting the null hypothesis of normality. In fact, by analyzing the skewness and kurtosis, the conclusions to take are the same - the index follows a non-symmetrical distribution since the value of the first is negative, pointing to a asymmetric distribution with a long tail to the left, and the second points to a distribution more peaked than a Gaussian distribution (Figure 1).

	Statistic	Df	Sig.
Percentage of "yes" Index	0.193	61	0.000

Table 6-Normality of Kolmogorov-Smirnov test to the index of information spontaneously provided by the employee

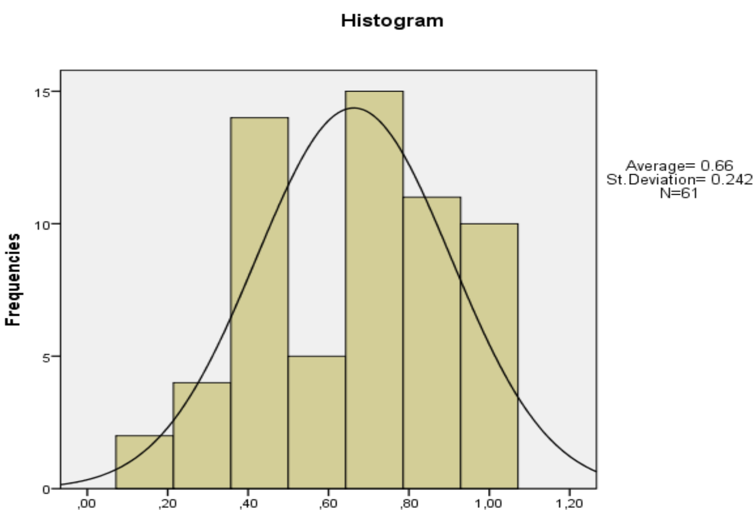


Figure 1-Histogram of the distribution of the index of information spontaneously provided by the employee

4.3.2.2 Analysis of the medians of the index

Since the index does not to follow a normal distribution, non-parametric tests are performed to test the equality of the medians of the indexes between different groups defined by demographic characteristics and types of products. According to the number of samples of each variable, the Wilcoxon-Mann-Whitney and Kruskal-Wallis tests are used for two samples and more, respectively. The first test compares the distribution functions of a variable measured in two independent samples while the second measure "tests if two or more samples are from the same population or different populations or , likewise, the samples come from populations with the same distribution, which is equivalent to testing if the population medians are equal" (Marôco, 2010). Also, in order to compare the differences between the medians for different demographic groups, they are presented in Table 7.

Medians					
Criteria	**Groups**	**Median**	**Criteria**	**Groups**	**Median**
Name of the bank	BBVA	71.4%	**Municipality**	Trofa	57.1%
	Banco BIG	85.7%		Vila do Conde	71.4%
	Banco Invest	57,1%		Vila Nova de Gaia	71.4%
	Santander Totta	57.1%	**Gender**	Female	71.4%
	Millennium BCP	71.4%		Male	71.4%
	Novo Banco	71.4%	**Job Position**	Commercial Assistant	42.9%
	Montepio	64.3%		Account Manager	71.4%
	CGD	50%		Financial Advisor	85.7%
	BPI	42,9%		Branch sub-manager	42.9%
	Banco Popular	64.3%		Branch manager	71.4%

	Barclays Bank PLC	100%	**Education**	High School	42.9%
	Deutsche Bank AG.	85,7%		Higher Education	85.7%
	Banco Best	85.7%	**Type of Product**	Structured deposits	71.4%
Municipality	Espinho	78.6%		Structured notes	85.7%
	Valongo	71.4%		Unit-linked	42.9%
	Gondomar	42.9%		Certificates	71.4%
	Maia	64.3%	**Age**	20-30	57.1%
				30-40	71.4%
	Matosinhos	71.4%			
	Porto	71.4%		40-50	64.3%
	Póvoa de Varzim	71.4%		50-60	42.9%
	Santo Tirso	50%			

Table 7- Medians of the index of information spontaneously provided by the employee by demographic groups

The results of the tests are shown in Table 8 and Table 9, respectively. Four factors - age, position, product type and education- seem to influence the score of individuals. With a significance level of 5%, the differences in the index scores across these factors are statistically significant.

Mann-Whitney Test		
	Gender	**Education**
p-value	0.742	0.011**

Table 8- Mann-Whitney test to the index of information spontaneously provided by the employee for gender and education
***, ** and * indicate statistical significance at the 1%, 5% and 10% level, respectively

Kruskal-Wallis Test					
	Name of the Bank	**Municipality**	**Age**	**Job Position**	**Type of Product**
p-value	0.120	0.522	0.014**	0.036**	0.018**

Table 9- Kruskal-Wallis test to the index of information spontaneously provided by the employee for name of the bank; municipality; age; position and type of product.

***, ** and * indicate statistical significance at the 1%, 5% and 10% level, respectively

Regarding the variable education, given that the sample in this case is only divided into two categories, it is clear that employees with higher education disclose more information to the client on their own initiative. In the cases of age, position and type of product this means that with a 5% level of significance, at least one group differs significantly from the other. However, the Kruskal-Wallis test does not allow us to conclude for each group the index is higher, so the Mann-Whitney test was computed between all subgroups of each of these variables. With regard to the age variable (Table 10), only two groups showed median index values significantly different between them: the age groups 30-40 and 50-60, whose medians are 71% and 43%, respectively. These values correspond to the maximum and minimum medians values within the age categories. The age group between 40-50 shows a median index of 64% and the age group between 20 -30 of 57%. With a significance level of 5%, the age group 30-40 seems to disclose more information to the client on their initiative (higher median index) than the age group 50-60. With respect to the other age groups the differences are only significant at 10% of significance level. Thus, it is not possible to identify an existing tendency in the behavior of the index according to the age of the respondents.

Mann-Whitney Test – Age (p-value)				
	20-30	**30-40**	**40-50**	**50-60**
20-30		0.071*	0.879	0.197
30-40			0.073*	0.002***
40-50				0.173
50-60				

Table 10- Mann-Whitney test to the index of information spontaneously provided by the employee across age categories

***, ** and * indicate statistical significance at the 1%, 5% and 10% level, respectively

As for the variable job position (Table 11), consisting of five professional groups, the tests have documented significant statistical differences (at 5% level) between account managers and commercial assistants, with medians of 71% and 43%, respectively. Additionally, the financial advisors (with a median of 86%) spontaneously disclose significantly more information than any other professional category, except from the Branch manager (with a median of 71%). Hence it can be concluded that financial advisors are those who had higher scores, followed by the account managers and the assistant commercial while the branch sub-managers registered the lower values in their scores. Considering that financial advisors have more specific knowledge on CFP, these results attest the importance of ensuring that these products are placed by specialized professionals and provide specific training on the matter to all of those responsible for the sale of CFP.

Test Mann-Whitney – Job Position (p-value)					
	Commercial assistant	**Account manager**	**Financial advisor**	**Branch sub-manager**	**Branch manager**
Commercial assistant		0.023**	0.008***	0.981	0.178
Account manager			0.098	0.204	0.758
Financial Advisor				0.100	0.105
Branch sub-manager					0.455

Table 11- Mann-Whitney test to the index of information spontaneously provided by the employee across position categories

For the groups of product types, according to the Mann-Whitney test (Table 12), for a significance level of 1%, the respondents offering structured notes (with a median of 86%) spontaneously provided more information that those offering structured deposits (with a median of 71%).

The occurrence of these results, on the spontaneous pre-contractual information, can have several explanations. Structured notes are a CFP often advised by Deutsche Bank, one of the two entities marketing it, which may explain that their employees are strongly directed to the sale of this asset type and whose characteristics they comprehend adequately. This result validates the need to safeguard the objectivity and impartiality of advisement, ensuring the equitable provision of information on the characteristics, advantages and disadvantages of the various financial products, adjusted to the needs and investors' risk profile, avoiding the risk of distortion associated with possible incentives or commercial objectives of the salesforce for specific products.

Moreover, for a significance level of 5%, respondents offering unit-linked products provided less information by their initiative (with a median of 43%) than those offering structured notes.

By contrast to the structured notes, in unit-linked products offer, the spontaneously information provided does not appear to have been offered with such priority, a trend that can find its justification in duration and other performance indicators harder to understand for the average investor.

Test Mann-Whitney – Type of product (p-value)				
	Certificates	**Unit-linked**	**Structured deposits**	**Structured notes**
Certificates		0.405	0.305	0.175
Unit-linked			0.987	0.045**
Structured deposits				0.003***
Structured notes				

Table 12- Mann-Whitney test to the index of information spontaneously provided by the employee across type of product categories

***, ** and * indicate statistical significance at the 1%, 5% and 10% level, respectively

4.4 Analysis of the capacity to answer to questions about the products

4.4.1 Frequency analysis

We analyze the frequencies of the responses of the employees to the questions about the products they offer, summarized in Graph 9.

The answers to the question about the capital guarantee reveal a very positive figure which indicates that even though they may not have full knowledge about the product, the knowledge of this basic feature was common among most of them.

The second question with highest percentage of score 3 is the question on the probability of zero profitability. Only two of the respondents had lower scores, one with score of 1 and another with score of 2. While the first was not aware of the existence or non-existence of this possibility, the other had to read the KID so he could answer to the client.

The third question with more responses with score 3 is the possibility of early redemption in which 2 cases had a score of 1 and only one had a score of 2. In both cases where employees obtained a score of 1, they presented certificates of Millennium BCP and both of them were not aware of the possibility of an early redemption. In the other case, the respondent was offering a structured deposit of Millennium BCP with no possibility of early redemption and he had to read the datasheet to see if this possibility existed.

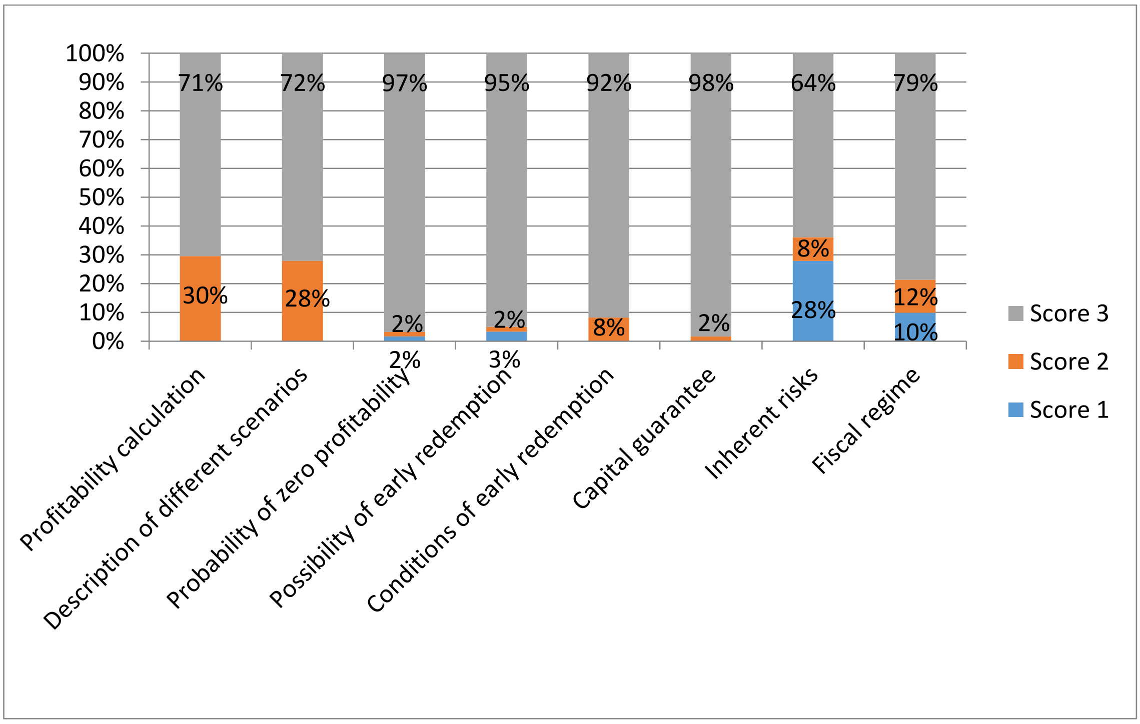
Regarding the question about the conditions of early redemption, 8% of the respondents have a score of 2, in which two of them (one from Barclays and one from BPI) who presented unit-linked products, were not certain about the consequences of exercising this option. On two other cases, both employees of Millennium BCP, they had to read information so they could explain the penalty on the interest resulting from an early redemption in a certificate. Finally, on another case of Millennium BCP, who also had a score of 2, this was due to not knowing about the existence of this option and, consequently, having doubts on the inherent penalty. However, they were all able to explain it after consulting the factsheet of the product.

The question on the fiscal regime recorded the second highest percentage of answers with score 1, however, 79% of the respondents gave the proper clarification on this issue. In the case of respondents who obtained score 1, three were the reasons. The first is justified by simply not knowing the applicable rate to the product (case of one branch of CGD and two from Millennium BCP), the second by saying the wrong value of the rate (case of one branch of Millennium BCP and one from CGD) and the third, which occurred when offering unit-linked products, due to them saying that the rate charged would be the common 28% when, in fact, these products have tax benefits when kept for a long-term (case of one branch from Barclays and another from BPI). As for the employees who obtained score 2 (12% of the respondents), two reasons were behind this score. In the case of four of them (two branches from Banco Popular and two from BPI), who offered unit-linked products, they knew about the existence of tax benefits but did not know exactly what fees or the time to obtain the same benefits. In the case of the other three (one branch from CGD, one from BBVA and another from Millennium BCP), employees did not know the rate that was applied. However, after looking at the KID, they were able to explain it correctly.

For the calculation of the profitability and the description of the different possible scenarios, the percentage of those who obtained a score of 2 are very similar, with a difference of just two percentage points. Several scenarios validate the assigned score. In some cases, the respondents were only able to explain these characteristics after reading the product's KID (case of two branches from Santander Totta, one from CGD, one from Millennium BCP and another from Montepio). In the specific case of a product offered by Santander Totta, the respondent revealed difficulty in explaining that the product guaranteed a fixed payment at the end of the product in the event of one of the semesters not paying. In another case, from a branch of Santander Totta, the employee said that the payment of a return was dependent on the average of all shares being higher than the initial average when, in fact, every share was assessed individually. Additionally, in two occasions (a branch of CGD and a branch of BBVA) the employees demonstrated difficulty in explaining the existence of profitability barriers in a certain product. Finally, in five cases, employees showed difficulty in presenting the value of the remuneration fee. They presented a certain remuneration as being the payment for each year when, in reality, that remuneration regarded the entire period of the product (case of five branches of Millennium BCP, two of BPI, one of Barclays and two of CGD).

For the inherent risks of the product, 28% of the respondents had the minimum score. For some structured deposits, the respondents disregarded the existence of any risk by saying that the capital was guaranteed (cases of one branch from BBVA, one from Montepio, three from Santander Totta, three from CGD, six from Millennium BCP and one from BPI), reflecting lack of knowledge on the concept of risk. Another case, of one branch of Barclays, the employee, when referring to a unit-linked product, indicated the risk of losing 20% of capital as the only one of the product. Finally, an employee of Millennium BCP identified the loss of capital as the only inherent risk of a certificate.

For the cases where the score was 2, various scenarios occurred. An employee of Novo Banco, which offered a unit-linked, mentioned the existence of several risks but explained only the risk in profitability since the entire capital could be lost. In the case of a respondent of CGD, he only explained the risk associated with the variation of the evolution of the underlying asset. One respondent of the Millennium BCP mentioned all risks except the one related with changes in the tax system, while another from the same bank had doubts about the liquidity risk of a certificate since he was not sure of the possibility of early redemption.. Additionally, a respondent of BPI mentioned all risks but indicated the possibility of total capital loss when the product in question only mentioned a loss up to 10% of capital.



Graph 9- Frequencies of the scores for each question

4.4.2 Index of capacity to answer questions about the products

4.4.2.1 Descriptive statistics and normality test

To respond to the main research question of this study, an index was built in order to measure the capacity of the salesforce of the banks to answer questions on the products they offered.

The index for each observation is given by the arithmetic mean of the scores in the eight question of group 6. Every question is scored between 1 and 3, thereby these numbers represent the minimum and maximum value of the index, respectively.

Observing the Table 13, the distribution of the Index has an average value of 2.830 and a median of 3.Regarding the percentiles of the sample, the calculations show that 25% of the inquired have a score equal or lower than 2,50. Since the median is equal to the percentile 50 and that value is, in this case, equal to the maximum the value of the score it also means that at least 50% of the sample has the maximum score possible.

From the skewness and kurtosis measures it is possible to conclude that the distribution of the index is not symmetrical. The value of the first is negative and lower than -1, which means that the distribution is asymmetric with a long tail to the left and it is far from being symmetrical. The value of the kurtosis points to a distribution more peaked than a Gaussian distribution. The conclusion drawn from these values is that the index does not follow a normal distribution, which is also what the test of normality of Kolmogorov-Smirnov documents with a p-value of 0.000 (Table 14).

Average	**Median**	**St. Deviation**	**Skewness**	**Kurtosis**	**Min**	**Max**	**Percentil 25**	**Percentil 75**
2.781	3.00	0.2783	-0.808	-0.973	2.25	3.00	2.50	3.00

Table 13- Descriptive Statistics of the Index of capacity to answer questions about the products

	Statistic	**Df**	**Sig.**
Knowledge Index	0.309	61	0.000

Table 14-Normality test of Kolmogorov-Smirnov

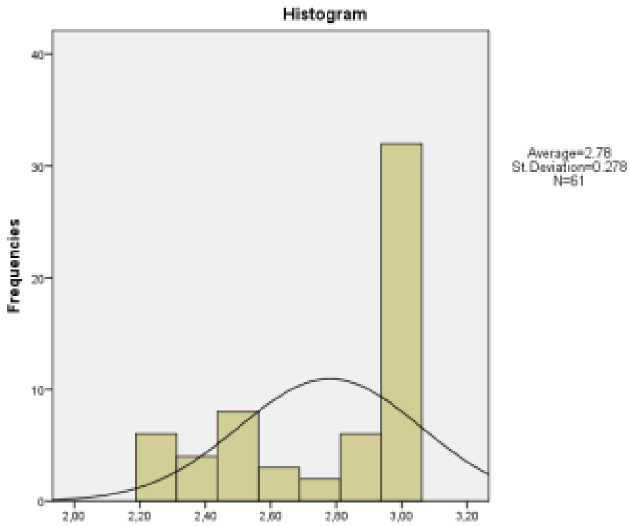


Figure 2- Histogram of the distribution of the index of capacity to answer questions about the products

4.4.2.2 Analysis of the medians of the index

In this section, the non-parametric tests of Wilcoxon-Mann-Whitney and Kruskal-Wallis for independent samples were conducted to determine if the differences occurred in scores of the knowledge of the respondents across different groups, defined by demographic characteristics and type of products, are statistically significant. In order to compare the differences between the medians for different demographic groups, they are presented in Table 15.

Medians					
Criteria	**Groups**	**Median**	**Criteria**	**Groups**	**Median**
Name of the bank	BBVA	2.69	**Municipality**	Trofa	2.57
	Banco BIG	3		Vila do Conde	2.63
	Banco Invest	3		Vila Nova de Gaia	3
	Santander Totta	2.75	**Gender**	Female	2.88
	Millennium BCP	2.69		Male	3
	Novo Banco	3	**Job Position**	Commercial Assistant	2.88
	Montepio	3		Account Manager	3
	CGD	2.63		Financial Advisor	3

	BPI	2.88		Branch sub-manager	2.5
	Banco Popular	2.88		Branch manager	3
	Barclays Bank PLC	2.63	**Education**	High School	2.5
	Deutsche Bank AG.	3		Higher Education	3
	Banco Best	3	**Type of Product**	Structured deposits	3
Municipality	Espinho	2.75		Structured notes	3
	Valongo	2.5		Unit-linked	2.88
	Gondomar	2.6		Certificates	2.25
	Maia	2.88	**Age**	20-30	2.94
	Matosinhos	3		30-40	2.5
	Porto	3		40-50	3
	Póvoa de Varzim	2.88		50-60	2.5
	Santo Tirso	2.5			

Table 15- Medians of the index of capacity to answer questions about the products by demographic groups

The results of these tests are shown in Table 16 and Table 17. The first test was used for the cases of education and gender, while the second was used for the remaining variables since that more than two independent samples are tested.

Two factors - age and product type - seem to influence the score of the individuals. With a significance level of 5% the differences in the index scores across these factors are statistically significant.

Kruskal-Wallis Test					
	Name of the Bank	**Municipality**	**Age**	**Job Position**	**Type of Product**
p-value	0.295	0.531	0.027**	0.364	0.028**

Table 16- Kruskal-Wallis test to the index of capacity to answer questions about the products

***, ** and * indicate statistical significance at the 1%, 5% and 10% level, respectively

Mann-Whitney Test		
	Gender	**Education**
p-value	0.421	0.214

Table 17- Mann-Whitney test to the index of capacity to answer questions about the products

***, ** and * indicate statistical significance at the 1%, 5% and 10% level, respectively

To draw conclusions about subgroups that differ significantly within the groups of age and type of product variables were computed Mann-Whitney tests.

With regard to the age variable (Table 18), with a significance level of 1%, the age group 40-50 seems to have significantly more knowledge on the product (higher median index) than the age group 30-40. Additionally, for a significance level of 5%, the age group 40-50 also seems to have significantly more knowledge than the age group 50-60. The age group between 20-30 shows a median index of 2.94, corresponding to the second highest median, however, it does not perform significantly different from any other age group.

The evaluation of the results, where the medians in general are not low, shows that professionals have satisfactory knowledge about the information to be provided. However, the results reflect different levels of adaptation of the salesforce, possibly according to their experience and training, but without a clear relationship to the different age groups. On this concern, the questionnaire does not measure the training received by the salesforce or the experience gained from the sale of these products.

Mann-Whitney Test – Age (p-value)				
	20-30	**30-40**	**40-50**	**50-60**
20-30		0.140	0.349	0.101
30-40			0.009***	0.786
40-50				0.020**
50-60				

Table 18- Mann-Whitney test to the index of capacity to answer questions about the products across age categories

***, ** and * indicate statistical significance at the 1%, 5% and 10% level, respectively

As for the groups of types of products, according to the Mann-Whitney test (Table 19), with a significance level of 1%, the performance of the employees offering structured notes is significantly higher than from those who offer unit-linked products.

Moreover, for a significance level of 5%, the performance of the employees offering structured notes is significantly higher than from those who offer structured deposits, despite having the same median of 3. This is due to employees offering structured notes having a higher average performance.

Additionally, for a significance level of 10%, the respondents offering structured notes also performed significantly better than those offering certificates.

The more objective advisement and a better domain of the product in the category of structured notes may possibly be related to the professional qualification of the professionals of the entities that offered them- Deutsche Bank and Barclays Bank- although it has not been observed significant differences between groups of banks.

Mann-Whitney Test – Type of product (p-value)				
	Certificates	**Unit-linked**	**Structured deposits**	**Structured notes**
Certificates		0.500	0.207	0.067*
Unit-linked			0.486	0.007***
Structured deposits				0.033**
Structured notes				

Table 19- Mann-Whitney test to the index of capacity to answer questions about the products across type of product categories

***, ** and * indicate statistical significance at the 1%, 5% and 10% level, respectively

4.5 Correlations

The analysis of the partial correlations, which filters out the effects of others, shows the relationships between the different variables.

The correlations were calculated according to the types of variables under analysis.

The Spearman correlation is calculated between the index of information spontaneously provided by the employee and the index of capacity to answer questions about the products to verify if there is a direct relationship between the two indexes. According to the results (Table 20), the value of the correlation between the two indices is not very high but it is significant for a significance level of 1 % and the correlation is positive, which means that respondents who get higher (smaller) scores on an index tend to also have better (worse) scores on the other index. This result suggests that, employees who have less knowledge about the characteristics of the product are also those who most retract to spontaneously provide information to the clients. This may suggest that the spontaneity of the respondents is related to their level of knowledge of the product.

Spearman correlation	
	Index of information spontaneously provided by the employee ***** **Index of capacity to answer questions about the products**
Rô de Spearman	0.375
Sig.(2-sided)	0.003

Table 20- Spearman correlation between the two indices

The Cramer's V is computed to verify if there are relevant correlations between nominal variables and between nominal and ordinal variables. According to the scale suggested by Davis (1971), the data presented in Table 21 it shows the existence of moderate / strong positive correlations between several variables.

The most evident correlation (0.708) is between the variable name of the bank and the mention of the need to proceed to a test for obtaining information about the customer's profile. This may be explained by the prevalence of the Deutsche bank and the Barclays Bank in the group of 13 interviews, in which this rule is mentioned.

The intense correlation between the name of the bank variable and the delivery of the KID highlights the repeated practice in some banks- Deutsche Bank and Banco Invest - of not delivering the data sheet, usually replacing it with a resume.

The correlation observed between the name of the bank variable and the spontaneous information on the risks and losses shows that the assessment of those risks is a diligence repeated in some banks- Deutsche Bank, Barclays and e Banco Best– and barely mentioned by others: Millennium Bcp, CGD and Bpi.

Cramer's V							
	Name of the Bank	Municipality	Age	Education	Job Position	Gender	Type of product
Information requested by the employee: Amount to be invested	0.36	0.38	0.194	0.068	0.23	0.324	0.286
Information requested by the employee: Investment period	0.426	0.405	0.231	0.226	0.135	0.185	0.331
Information requested by the employee: Level of risk aversion	0.461	0.379	0.22	0.314	0.209	0.034	0.353
Suitability and appropriateness test: Mention the need to proceed to a suitability and appropriateness test	0.708	0.291	0.262	0.278	0.291	0.044	0.571
Information spontaneously provided by the employee: Delivery of the KID	0.601	0.342	0.264	0.21	0.26	0.027	0.245
Information spontaneously provided by the employee: Risk and possible losses	0.527	0.394	0.306	0.27	0.35	0.071	0.394
Information spontaneously provided by the employee: Maturity of the product	0.44	0.279	0.404	0.093	0.162	0.062	0.147
Information spontaneously provided by the employee: Possibility of early redemption	0.422	0.47	0.307	0.207	0.331	0.055	0.356
Information spontaneously provided by the employee: Cost of early redemption	0.422	0.47	0.307	0.207	0.331	0.055	0.356

Table 21- Cramer'sV

The Eta is now measured to analyze the association between interval and nominal variables. The results of the associations between interval and nominal variables, computed by ETA, are presented in Table 22.

According to the results, the highest association between the capacity to answer a question on CFP and another variable occurs with a 0.759 association between the capacity to answer about the possibility of early redemption and the type of product which is the same as saying that 75.9% of the variance in the capacity to answer about this characteristic can be explained by the type of the product presented. Also, for the capacity to answer about the conditions of early redemption, the type of product explains 55,1% of its variance. This can be explained by the fact that almost every respondent had the maximum score on this question and the ones who didn't presented mostly certificates. Since the respondents of Millennium Bcp, the bank offering this product, mostly offered structured deposits, this may point to some fail in the training of employees regarding this type of product.

Regarding the question on the fiscal regime, the only variable with a moderate level of association is the bank name with an eta equal to 0.508. This is due to the fact that most of the banks in which the score was low, it was referent to only three of them. This attests for the need to create specific training adjusted to the specific failures of each entity.

The two questions – on inherent risks and on possibility of early redemption- in which the municipality seems to explain 51,7% and 51,5% of its variance, respectively, this is explained by the fact that most of the municipalities who had higher scores were Porto, Gaia and Matosinhos. This can suggest there is a tendency for the entities to place more qualified professionals in areas where the type of investors is more demanding.

Eta				
	Name of the Bank	Municipality	Gender	Type of product
Capacity to answer about CFP: Profitability calculation	0.475	0.449	0.169	0.255
Capacity to answer about CFP: Description of different scenarios	0.440	0.392	0.130	0.295
Capacity to answer about CFP: Probability of zero profitability	0.217	0.342	0.085	0.117
Capacity to answer about CFP: Possibility of early redemption	0.366	0.515	0.012	0.759
Capacity to answer about CFP: Conditions of early redemption	0.431	0.493	0.105	0.551
Capacity to answer about CFP: Capital Guarantee	0.332	0.178	0.150	0.087
Capacity to answer about CFP: Inherent Risks	0.425	0.517	0.014	0.296
Capacity to answer about CFP: Fiscal Regime	0.508	0.311	0.005	0.395

Table 22- Eta between demographic variables and the capacity to answer about CFP

From the results presented above, some conclusions can be drawn. First, the spontaneity of the respondents seems to be related to their level of knowledge of the products. Second, the results attest for the need of certain banks to develop strategies directed to respond to specific failures, especially in what concerns the delivery of the KID and the appropriateness and suitability test procedures. Also worth of attention is need for a more equal placement of qualified in the different municipalities. Finally, the results point for the need of specific training adequate to each product.

5. Conclusions

The main issue that led to the concretization of the present study results of the strong asymmetry of information related with the nature, risks and monitoring of CFP between their issuers and the investors. Thus, the purpose of the current research is to measure the capability of the sales force of the banks to properly present CFP.

The concerning problem of the misselling of these products was enhanced by a very high degree of financial innovation and the growing levels of investment in these products. Some authors found evidence of misinterpretation of CFP by costumers and several authorities drew attention to the way issuers disclose information on the products. Several authorities supported the need for financial expertise and are taking measures to promote investors' protection in the field of CFP.

Therefore, the relevance of this dissertation results from the lack of empirical research on the capability of the banks' salesforce to understand and inform properly to customers the features of the complex financial products they sell.

Resulting from this concern, this research intended to verify the compliance with several rules related to the sale of CFP: rule of obligatory provision of the KID to the investor on CFP covered by the Regulation No.2/2012; requirement of the suitability and appropriateness test required under the MiFID directive and the protocol signed in 2013 between the CMVM and 19 Portuguese banks on the marketing of CFP to retail investors. As such, both the various dimensions covered by the protocol as other implemented by previous regulation were evaluated.

This study uses the mystery client approach to assess the capacity of bank sales force to sell CFP to the costumers in the Grande Porto area, by visiting 61 branches of the specific banks in consideration.

The first observation made in this report concerns the products offered by the sales force of the banks, since almost half of the banks presented products with an orange or red risk alert. According to the protocol, the sales force is supposed to abstain from offering this type of products outside the scope of provision of discretionary management service or investment advice. This problem is aggravated in cases where the pre-contractual information is replaced by a summary with limited and simplified information of the investment strategy, emphasizing the potential gains and hiding or minimizing the risks of loss, which may induce investors to error. This clearly does not contribute to appropriate sales practices. Thus, the results call for a more rigorous control on the compliance of this rule by the banks.

Although not being covered by any regulation, the first dimension studied in the report concerns the information requested by the bank's sales force, which is in some way related to the suitability test rule, since it is also a way to get to know the client's profile. The conduct of the sales force, before recommending an investment to a client, should be guided by making reasonable efforts to obtain information about the financial profile of their client, investment objectives and any other relevant information. The main conclusions worth mentioning on this dimension point to the need for a huge improvement on the attention paid to the clients' profile by the employees, since the highest percentage recorded was of 60.7%, which corresponds to the percentage of times that the employees asked about the amount to be invested. Besides, the lowest rates respect to the question of the risk aversion level and the products previously bought by the clients, which should be considered two very important pieces of information to evaluate the knowledge and experience of the investors.

The second dimension analyzed was the information spontaneously provided by the employees to the costumer when selling a product. In here, although other relevant information on the product were covered, the main focus was on the obligation to proceed to the suitability and appropriateness test in accordance with the MiFID directive and the delivery of the KID. On those two, the first was provided in only 21% of the interviews while the second was delivered in 79%. From this data, it can be concluded that the rule of the suitability and appropriateness test is hardly being mentioned to the clients, which is something that needs much improvement while the delivery of the KID seems to be already a principle adopted by all the banks in this study. Regarding the rest of the information (profitability, maturity, possible risks, possibility and conditions of early redemption), those were compared with a study by CMVM, reveling the existence of gaps in the information provided spontaneously by employees. Also for this dimension, an index was built to measure the number of information spontaneously provided by each individual and the results showed that more than half of the sample have higher scores in the index than the average level of the entire sample and only 25% of the inquired have more than 0.8571, which is not a very optimistic value and meets the conclusions taken from the frequency analysis. The tests on the differences between demographic group's medians showed that four factors - age, position, product type and education - appear to influence the score of individuals. For the variable age, it is not possible to identify an existing tendency in the behavior of the index. The results for the job position point for the importance of ensuring that the placement of these products is carried by specialized professionals. Also, the results from the education variable suggest that employees with higher education tend to disclose more information on their initiative. For the type of products, there seems that certain entities are directed to the sale of certain asset types and as such tend to be more prepared to present those products. This result attest for the need to safeguard the objectivity and impartiality of advisement, avoiding the risk of distortion associated with possible incentives or commercial objectives of the salesforce for specific products.

The third dimension studied respects to one of the main purposes of the protocol mentioned before and it analyzes the knowledge of respondents for the products that they offer. The frequency analysis pointed to the questions of the capital guarantee, of the probability of zero profitability and of the possibility of early redemption as being the most correctly answered by the employees. The highest difficulties to answer the questions on CFP were registered on those about the inherent risks and fiscal regime. Also for this dimension, an index was created to measure the capacity of the salesforce of the banks to answer about questions on the products they offered. The results showed an average value of 2.830 and a median of 3, which means that more than half of the sample have higher scores in the index than the average level of the entire sample. The tests on the differences between demographic group's medians showed that two factors – age and product type - appear to influence the score of individuals.

Regarding the age variable, the results reflect different levels of adaptation of the salesforce, maybe due to their experience and training, but there is no clear relationship to the different age groups. For the type of products variable, there seems that employees selling structured notes perform repeatedly better that those selling any other product which suggest that professionals of the two entities selling those products – Barclays Bank and Deitsche Bank- are more prepared to sell this product. This may be due to possible commercial objectives of the entities to the sale of structured notes and, thus, a better training.

Finally, the analysis of the correlation between the most relevant variables was conducted to identify other possible relations between variables. This analysis suggests that employees with higher scores on an index tend to also have a better score on the other index, suggesting that the spontaneity of the respondents is related to their level of knowledge of the products. Other variables showed a substantial relationship, such as between the name of the bank and three other variables: mention of the need to proceed to suitability and appropriateness test, the delivery of the KID and the question on the fiscal regime. The results attest for the need of certain banks to develop strategies to respond to failures found on those particular matters.

Also, strong relations were found between the capacity to answer about the possibility of early redemption and the type of product and the municipality. Besides, the municipality and the type of product also seem to explain moderately the capacity to answer about the inherent risks and the capacity to answer about the conditions of early redemption, respectively. The results suggest there is a tendency for the entities to place more qualified professionals in areas where the type of investors is more demanding. Also, the fact that the type of products have influence on the knowledge of characteristics of early redemption attest for the need of specific training adequate to each product.

Based on the survey results, respondents expressed, in general, a reasonable domain of the characteristics of the products they were allowed to sell and provided some relevant information about them but other flaws in the provision of the products were found, especially in what concerns the suitability of the products to the clients.

From the results of the analysis, several recommendations can be drawn. Firstly, financial institutions should closely supervise its sales force and take measures to ensure that their representatives have the necessary skills to sell and provide advice on each product and must, if necessary, limit his authority to sell certain products or require them to direct the client to a more qualified professional.

Second, from this investigation it is possible to take conclusions on the weakest points showed by the bank's salesforce, which can be really useful to develop training programs focused on those failures. There are failures common to most all banks but there are also weaknesses specific to each bank. Thus, the training should not only be general to all banks but it should also result from specific internal trainings adequate to the specific needs of the sales force of each bank.

Another recommendation that was actually considered in the Behavioral Supervision Report of 2014 by the Bank of Portugal is the possibility to create a new regulation that requires the provision of the traditional banking products in a different place from the other investment products, in order to become more easily noticeable to the public.

Furthermore, despite the many efforts that all the involved parties, regulators and the regulated banks, have done and are beginning to produce some positive results, it is necessary to do even more and continue this effort. As mentioned by Banco de Portugal (2014a), mechanisms that ensure "that institutions take into account the interests, goals and features of the costumers and adopt a culture of compliance with the spirit of the law" should be created.

Some limitations of the study can be pointed. Firstly, it is to highlight the difficulty of gathering all the necessary information. At this level, it is to stress the insufficiency of information on the commercial network regarding the possible incentives to sell certain products with priority, such as performance-based compensations associated with the achievement of sales objectives. Also in this regard, the questionnaire does not measure the specific training received by the salesforce or the experience gained from the sale of these products.

Secondly, due to the methodology adopted in the research, it was not possible to conclude about the specific academic education of the employees and the amount of internal training the employees are subject to.

Thirdly, also due to the methodology adopted, it was not possible to take conclusions on whether or not the employee was responsible for the sale of these types of products or even if there are specialized professionals responsible for the sale of CFP.

Fourthly, the research could not assess the specific initiatives taken to ensure the compliance with the regulation since it was not possible to conduct an inquiry to the department of the banks responsible for ensuring this.

Therefore, the study should be complemented by an inquiry directed to the department responsible for implementing the regulation in the area, to the department responsible for ensuring the compliance with regulation and to the department of human resources responsible for the training of the employees.

Finally, since the major limitation of the present study was the need to use a limited sample due to time constraints and as a suggestion for possible future studies it would be interesting to broaden the focus of the research for the banking sector at the national level, use the same type of sampling technique.

Although these limitations are relevant for the analysis, the study allows taking generic conclusions that can be useful to possible future adjustments in the procedures to improve the quality of the services offered by the banks.

Appendices

Appendix 1- Calculations for the distribution of branch visits per bank

Entity	No. of Branches in Grande Porto	Amount of traded CFP in €	Weight according to amount (variable 1)	Weight according to number of branches (variable 2)	Weighted sum of variable 1 and 2 with 50% weight each	No. Of branches assuming 61 visits
BBVA	14	205	2,7%	2,3%	3%	2
Banco BIG	3	205	2,7%	0,5%	2%	1
Banco Invest	2	470	6,3%	0,3%	3%	1
Santander Totta	93	763	10,2%	15,1%	13%	8
Millennium BCP	105	3.063	40,7%	17,1%	29%	16
Novo Banco	78	161	2,1%	12,7%	7%	5
Montepio	60	264	3,5%	9,8%	7%	4
CGD	94	763	10,2%	15,3%	13%	8
BPI	93	99	1,3%	15,1%	8%	5
Banco Popular	32	2	0,0%	5,2%	3%	2
Barclays Bank PLC	23	172	2,3%	3,7%	3%	2
Deutsche Bank AG.	14	1.217	16,2%	2,3%	9%	6
Banco Best	3	132	1,8%	0,5%	1%	1
TOTAL	614	7.518	1	1	1	61

Table 23- Distribution of branch visits per bank

Appendix 2 – Calculations for the distributions of branch visits per municipality

Municipality	BBVA	BPI	Millennium BCP	Banco BIG	Novo Banco	Banco Invest	Banco Popular	Santander Totta	Barclays Bank PLC	Montepio	CGD	Deutsche Bank AG.	Banco Best	Total branches per municipality	Weight of each municipality in Grande Porto	Number of branches to visit per municipality
Espinho	1	1	3	0	3	0	1	2	1	2	1	1	1	17	3%	2
Valongo	0	3	4	0	2	0	2	5	2	5	4	0	0	27	4%	3
Gondomar	1	7	11	0	5	0	2	5	1	6	6	0	0	44	7%	4
Maia	1	10	8	1	7	0	4	10	2	3	9	1	0	56	9%	6
Matosinhos	1	16	13	0	9	0	5	10	4	6	13	1	0	78	13%	8
Porto	8	31	37	2	29	2	8	32	7	16	33	9	2	216	35%	21
Póvoa de Varzim	1	4	3	0	4	0	1	4	1	2	4	1	0	25	4%	2
Santo Tirso	0	2	6	0	1	0	1	3	1	3	2	0	0	19	3%	2
Trofa	0	2	3	0	2	0	1	2	1	2	3	0	0	16	3%	2
Vila de Conde	0	4	2	0	5	0	1	3	1	4	4	0	0	24	4%	2
Vila Nova de Gaia	1	13	15	0	11	0	6	17	2	11	15	1	0	92	15%	9
TOTAL	**14**	**93**	**105**	**3**	**78**	**2**	**32**	**93**	**23**	**60**	**94**	**14**	**3**	**614**	**1**	**61**

Appendix 3- Observation Questionnaire

Questions	Justification	Scale
1. Bank		
Name of the Bank	To make comparisons between banks.	Bank Name
Location	To make comparisons between municipalities.	Municipality
2. Respondent Profile		
Age	To make comparisons between age groups.	20-30;30-40;40-50;50-60
Gender	To make comparisons between genders.	Female; Male.
Position	To make comparisons between position.	Account Manager; Branch Manager; Branch sub-manager; Commercial Assistant; Financial Advisor.
Education	To make comparisons between education levels.	High school; higher education.
3. Information requested by the employee	These questions intend to verify the concern of employees with the investors' profile.	
Amount to be invested	Based on the study from CMVM(2012b).	Yes; No
Investment period	Based on the study from CMVM(2012b).	Yes; No
Level of risk aversion	Based on the study from CMVM(2012b).	Yes; No
Products acquired before	Based on the study from CMVM(2012b).	Yes; No

4. Suitability and appropriateness test		
Mention the need to proceed to suitability and appropriateness test	Under the MiFID directive, a suitability and appropriateness test is required when a client intends to invest in a CFP, so these questions intends to verify if this rule is being followed by the staff.	Yes; No
5. Information spontaneously provided by the employee	These are pertinent questions because they identify the information that employees consider to be relevant to provide about a product.	
Delivery of the KID	To measure the compliance with Regulation No. 2/2012 (CMVM).	Yes; No
Profitability of the product for the different scenarios	Based on a study from CMVM (2012b).	Yes; No
Risks and possible losses	Based on a study from CMVM (2012b).	Yes; No
Maturity of the product	Based on a study from CMVM (2012b).	Yes; No
Possibility of early redemption	Based on a study from CMVM (2012b).	Yes; No
Cost of early redemption	Based on a study from CMVM (2012b).	Yes; No
6. Capacity to answer about a CFP	In this section, the	

	capacities of employees to answer questions related with CFP are evaluated, to verify if the qualifications of the employees, as demanded in the protocol, are being met.	
6.1 Profitability		
Profitability calculation	Based on the recommendations to investors of CFP presented in CMVM (2012a).	1-3
Description of different scenarios	Based on the recommendations to investors of CFP presented in CMVM (2012a).	1-3
Probability of zero profitability	Based on the recommendations to investors of CFP presented in CMVM (2012a).	1-3
6.2 Cancellation of the investment before maturity		
Possibility of early repayment	Based on the recommendations to investors of CFP presented in CMVM (2012a).	1-3
Conditions of early repayment	Based on the	1-3

	recommendations to investors of CFP presented in CMVM (2012a).	
6.3 Capital Guarantee	Own elaboration based on a KID of a CFP.	1-3
6.4 Inherent Risks	Own elaboration based on a KID of a CFP.	1-3
6.5 Fiscal Regime	Own elaboration based on a KID of a CFP.	1-3

Appendix 4- Description of the products offered by the banks

Structured deposits

Equity-linked deposits

Among the offer of the structured products in this study, this category was found to be the dominant one. The underlying assets included in the creation of these products are of varied nature. This type of products, often designated as equity-linked deposits, have an associated profitability dependent on the performance of shares, stock indices or portfolios of stock indices (Ferreira, 2014). Among these products, the majority of them ensure the capital invested. However, some products, among the presented, did not have this characteristic.

Furthermore, the various products that were commercialized, during the survey period, demonstrated similar characteristics but with just a few variants. While the profitability of some occurred only when all the shares of a group of selected companies verified, simultaneously, a close price superior to the initial value (cases of Millennium BCP and Santander Totta), others remunerated when the average performance of all the shares was superior to the initial average (cases of BPI, Millennium BCP and Santander Totta). In other cases, the products offered more than one possibility, and the compensation could take different values depending on the case of all shares, only some or almost none appreciate their value. Also, another variant of product offered compensation equal to the performances' average of the underlying basket of shares (BBVA).

Regarding the equity index linked deposits, two categories had come up in the study: the one presented by Banco Invest, in which the compensation would be equal to 50% of the index profitability; and the one offered by Novo Banco, which consisted in a dual deposit made by two term deposits and an equity- linked deposit, where the later would pay 80% of the average profitability of the underlying index.

Lastly, in the same category, a note about the product presented by Banco BIG, in which the capital repayment and the compensation are associated to the possible positive or negative evolution of the PSI 20 index quotation. This product reveals a particularity that differentiates from the remaining products, since, in the case of the index's final variation being inferior or equal to zero, the capital is not totally guaranteed, admitting the possibility of loss to a maximum of 10%. Because of this, it's not a product protected by the Fundo de Garantia de Depósitos, contrary to the other products mentioned before.

Interest rate-linked deposits

Other category of structured products presented during the visits, denominated interest rate-linked deposits, is characterized for associating profitability to the evolution of interest rate indices (Ferreira, 2014). This typology of products was suggested by CGD, which presented two of those products: one depending on the 3-month Libor rate and another on the 6-month Euribor rate. The first case is a USD denominated asset, with compensation paid every three months for three years. In the second case, it was a product that conditioned the investor into choosing between the decrease or the increase of the 6-month Euribor rate and in the event of the expectations being confirmed, the bank would remunerate at a pre-fixed rate.

Foreign exchange-linked deposits

Among the structured deposits it was presented another format denominated foreign exchange-linked deposits, in which returns depended on the evolution of the stock quotes of a given currency (Ferreira, 2014). This product, suggested by CGD, offers compensation according to the evolution of the EUR/USD exchange rate, which payment would be equal to 50% of the valorization, in the case of this happening.

Structured Notes

Structured notes are, in terms of functioning, similar to structured deposits. However, these are combined securities proper of a note, or in other words, it is a debt tool, with payment, certain or variable, is connected to a derivative instrument in which the compensation is dependent (CMVM, 2012c). Because it is a security, it is not covered by Fundo Garantia de Depósitos since this only covers refunds of deposits in case of failure of the issuing bank.

This class of products was proposed by two entities – Deutsche Bank and Barclays. The typically presented products by these entities are the designated equity-linked notes and have a differentiating nature comparing to the products presented by the remaining entities, since it includes two kinds of applications: one of fixed and another of variable profitability– depending on the performance of a group of shares (Deutsche Bank’s case). Furthermore, the result is conditioned on the non-occurrence of credit events on the senior debt of the included companies in the product portfolio (basket credit-linked notes). Therefore, the product conception includes two asset categories of different nature. The term of the fixed component is usually short, up to one year of maturity, while the variable element produces effects on longer terms, more than one year. At the Deutsche Bank, some of the offered products include decreasing barriers that allow, over the years, the shares' performance to be progressively lower in order to pay interest.

Regarding the product proposed by Barclays Bank, this one follows the same conception and function logic of the previous financial institution, except on the indexed variable component. In this case, the underlying asset is a stock index, and, therefore the product depends on the performance of a higher number of shares, which in some way introduces the diversification factor into the investment risk.

Certificates

Certificates are composed of securities that replicate the underlying asset value evolution, being this, usually, a shares market index, goods or a specific share basket (CMVM, 2012c).

In this study, this category is proposed only by Millenium BCP's sales force. It is a negotiable financial instrument issued by the bank, which returns are associated to the evolution of other securities (stock indexes) that are expected to appreciate during the contract time span. These securities do not guarantee the initial invested capital but can generate high returns, reflecting the exceptional underlying asset performance. Besides this category, Millennium BCP proposed another product designated "Dueto" which combines into just one product two applications, one constituted by a simple term deposit and another that consists of a stock index certificate. This typology maintains the risk associated to the certificate's return but the other component constituted by a fixed return financial instrument turns the product interest towards investors with a moderate risk profile.

Unit-linked funds

The unit-linked fund represents a fund linked to a plan issued by an insurance company and it is expressed in units of equal value that are representative of autonomous funds constituted by assets of the insurer or by participation units of one or various investment funds (CMVM, 2012c). The profitability of these products is dependent on the evolution of those assets' value. These assets could be of different natures, thus, having different kinds of risks.

This kind of product has fiscal advantages in medium-long term (after 5 years the tax rate goes from 28% to 22,4% and from that value to 11,2% after the 8th year) and, therefore, they are products directed to clients not only with tolerance towards risk but also who want to benefit from a superior fiscal efficiency in their investment.

This product is commercialized by five entities – Barclays, BPI, Banco Popular, Banco Best and Novo Banco – each one with its own associated level of risk. While at Banco Popular, the product in commercialization guarantees the capital as long as it is not mobilized before maturity, in the case of Novo Banco and Banco Best, the products have an warning to the risk of a total loss of the invested capital in case of a total and simultaneous devaluation of all assets that constitute the autonomous fund. Regarding the products commercialized by BPI and Barclays, these consist in an intermediate between the two last financial instruments since they could incur in partial loss of the invested capital, and this loss can be 15% in the case of Barclays and at BPI it corresponds to an amount with undefined capital risk.

References

Associação Portuguesa de Bancos (2013), "Boletim Informativo Nº48 2012, Anual", APB.

Associação Portuguesa de Bancos (2014), "Boletim Estatístico Nº50 2014, Semestral", APB.

Aviso do Banco de Portugal nº5/2009. Diário da República nº161- II Série- 20/08/2009.

Aviso do Banco de Portugal nº6/2009. Diário da República nº161- II Série- 20/08/2009.

Banco de Portugal (2014a), Relatório de Supervisão Comportamental.

Banco de Portugal (2014b), Relatório de Acompanhamento dos Mercados Bancários de Retalho.

Bell, S. J., & Eisingerich, A. B. (2007), "The paradox of customer education: Customer expertise and loyalty in the financial services industry", *European Journal of Marketing*, 41, 466-486.

Blümke, A. (2009). How to invest in structured products: a guide for investors and asset managers. John Wiley & Sons.

Braunstein, S. and C. Welch (2002), "Financial literacy: an overview of practice, research, and policy", *Federal Reserve Bulletin*, 88, 445-457.

Breuer, W., & Perst, A. (2007). "Retail banking and behavioral financial engineering: The case of structured products", *Journal of Banking & Finance,* 31(3), 827-844.

Bruhn, M., & Zia, B. (2011). "Stimulating managerial capital in emerging markets: the impact of business and financial literacy for young entrepreneurs", *World Bank Policy Research Working Paper Series.*

CMVM (2010), "Produtos Financeiros Complexos: Metodologias para a sua avaliação.", Estudos CMVM 2010, 1.

CMVM (2011), "Relatório de Análise de Impacto da Regulamentação de Produtos Financeiros Complexos". CMVM, Lisboa.

CMVM (2012a). “Recomendações aos investidores em Produtos Financeiros Complexos”. CMVM, Lisboa.

CMVM (2012b). “Relatório Anual 2012 sobre Atividade da CMVM e sobre os Mercados de Valores Mobiliários”. CMVM, Lisboa.

CMVM (2012c). “Produtos Financeiros Complexos”. CMVM, Lisboa.

CMVM (2013). “Protocolo sobre a Comercialização de Produtos Financeiros Complexos”. CMVM, Lisboa.

Cochran, W. G. (1963), *Sampling Techniques*, 2nd Ed., New York: John Wiley and Sons, Inc.

Davis, J. A. (1971). *Elementary survey analysis*. Englewood Cliffs, NJ: Prentice-Hall.

Decreto-Lei n.º 211-A/2008, 3 de Novembro. Diário da República nº 213 - I Série., Ministério das Finanças e da Administração Pública. Lisboa.

Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004, *Official Journal of the European Union.*

Döbeli, B., & Vanini, P. (2010), “Stated and revealed investment decisions concerning retail structured products”, *Journal of Banking & Finance*, 34(6), 1400-1411.

ESMA (2013), “Economic Report: Retailisation in the EU.”.

ESMA (2014). "Alerta aos investidores: Os riscos de investir em produtos complexos." Retrieved 18/12/2014,from http://www.esma.europa.eu/system/files/investor_warning_-_complex_products_-_pt.pdf

European Banking Federation (2009), “EBF Report on Financial Literacy: Financial literacy – empowering consumers to make the right choices.”

European Comission (2011).“Proposal for a: Regulation on the European Parliament and the Council on markets in financial instruments and amending Regulation [EMIR] on OTC derivatives, central counterparties and trade repositories.”

Ferreira, D. (2014). “Finanças Tóxicas e Crises Financeiras”. Letras e Conceitos, Lda.

Finn, A. and U. Kayandé (1999), "Unmasking a phantom: a psychometric assessment of mystery shopping.", *Journal of Retailing* , 75, 195-217.

Ghiglione, R. and Matalon, B. (2001), *O inquérito: teoria e prática*, Oeiras: Celta Editora.

Grifoni, A. and F. Messy (2012), "Current Status of National Strategies for Financial Education: A Comparative Analysis and Relevant Practices ", *OECD Working Papers on Finance, Insurance and Private Pensions*, OECD Publishing.

Hackethal, A., et al. (2012), "Financial advisors: A case of babysitters?", *Journal of Banking and Finance*, 36, 509-524.

Hens, T. and M. O. Rieger (2008), "The dark side of the moon: structured products from the customer's perspective.", Working Paper 459.

Hesselink, M., & Van der Wiele, T. (2003). "Mystery Shopping: In-depth measurement of customer satisfaction."

IOSCO (2013a). Suitability Requirements With Respect To the Distribution of Complex Financial Products.

IOSCO (2013b). Regulation of Retail Structured Products Final Report.

J.Williams, O. and S. E. Satchell (2011), "Social welfare issues of financial literacy and their implications for regulation", *Journal of Regulatory Economics*, 40, 1-40.

Jappelli, T. and M. Padula (2013), "Investment in financial literacy and saving decisions.", *Journal of Banking and Finance*, 37, 2779-2792.

Jinkook, L. and C. Jinsook (2005), "Consumers' use of information intermediaries and the impact on their information search behavior in the financial market.", *Journal of Consumer Affairs* 39, 95-120.

Larosière, J., et al. (2009), "The high-level group on financial supervision in the EU - de Larosiere Report."Brussels.

Lusardi, A. and O. S. Mitchell (2014), "The Economic Importance of Financial Literacy: Theory and Evidence.", *Journal of Economic Literature*, 52, 5-44.

Mandell, L. (2008), “The financial literacy of young American adults: Results of the 2008 National Jump $ tart Coalition survey of high school seniors and college students.”, *Washington, DC: The Jump $ tart Coalition for Personal Financial Literacy*.

Marôco, J. (2010). *Análise Estatística com o PASW Statistics (ex- SPSS),* Pêro Pinheiro: Report Number.

Nicolini, G. (2006), “A regulatory perspective on consumer financial capability.” *Consumer Financial Capability: Empowering European Consumers,* 78.

OECD (2006), "Improving Financial Literacy: Analysis of Issues and Policies.", *Financial Market Trends*.

INFE and OECD (2012), “OECD/INFE High-Level Principles on National Strategies for Financial Education”.

OECD (2013). PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy.

Pinar, M., et al. (2009), "Using Mystery Shopping to Compare the Service Quality of Banks in Turkey.", *Services Marketing Quarterly,* 31, 1-26.

Puszczak, K., et al. (2013), “Analysis of sample size in consumer surveys”.

Regulamento da CMVM nº 2/2012: Deveres Informativos Relativos a Produtos Financeiros Complexos e Comercialização de Operações e Seguros Ligados a Fundos de Investimento, Diário da Républica- II Série (2012-11-26).

Regulation no. 1/2009: Information and advertising on complex financial products under supervision of the CMVM. Diário da Républica- II Série (2009-07-30).

Rieger, M. O. (2008), "Probability Misestimation and Preferences in Financial Investment Decision.", Working Paper. Available at SSRN 1367553 (2008).

Roberts, B. and R. C.Campbell (2007), "Being new-customer friendly: determinants of service perceptions in retail banking.", *International Journal of Bank Marketing*, 25, 56-67.

Russia's G20 Presidency and OECD (2013). "Advancing National Strategies for Financial Education ".

Schrader, U. (2006), "Ignorant advice – customer advisory service for ethical investment funds.", *Business Strategy and the Environment*, 15, 200-214.

Schwarcz, S. L. (2009), "Regulating Complexity in Financial Markets.", *Washington University Law Review*, 87, 211.

The Market Research Society (2014). Code of Conduct.

Tolle, S., et al. (2012), *Structured Products in Wealth Management*, John Wiley & Sons.

Wallmeier, M. (2011), "Beyond payoff diagrams: how to present risk and return characteristics of structured products.", *Financial Markets and Portfolio Management*, 25, 313-338.

Wiele, T. V. d., et al. (2005), "Mystery shopping: A tool to develop insight into customer service provision.", *Total Quality Management & Business Excellence*, 16, 529-541.

Willis, L. E. (2008), "Against Financial Literacy Education.", *Iowa Law Review* , 94.

Wilson, A. M. (1998), "The role of mystery shopping in the measurement of service performance.", *Managing Service Quality: An International Journal* 8,414-420.